Presidential Addresses
TO THE
BRANCHES OF THE BRITISH MEDICAL ASSOCIATION.

METROPOLITAN COUNTIES BRANCH.

THE STATE, THE POOR, AND OUR PROFESSION.

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I MUST first thank you most sincerely for the honour you have done me in electing me your President. I can only assure you I will endeavour to follow the example given me by my worthy predecessors in this office, and I know I shall receive from you all every assistance and consideration that I may be able to do my duty in maintaining the dignity of this important Branch of the Association. I should be wanting in respect to two men, who have passed the Rubicon to the Great Unknown since our last annual meeting, if I did not refer to the universal loss by the death of Lord Lister, a great man, the pioneer of a great work, a benefactor to the whole of mankind, the man who has made modern surgery possible; and I also refer to one who was not only respected as a great surgeon, but who had been a great worker in our Association, and a good friend. There is no doubt our late President, Sir Henry Butlin, could be ill spared when he died this year. There was a general feeling that he was wanted in the crisis of our profession, for he was a true fighter, when he know that justice and right were on his side.

The events of the past year cannot be ignored in any address now given, and I think our profession must be thankful that we made an attempt in 1903 to obtain some combined organization amongst ourselves in the form of a new constitution of the Association. I purposely use the word "attempt" because those who have worked under the present form of the administration fully recognize that our new constitution is far from perfect. Government by our Divisions has failed in many parts to appeal to some individual members; consequently, the Representative Meeting has not always received the confidence of the whole members of the Association.

It must be remembered in any union of men that the active workers consist of 10 per cent., or at the most 20 per cent., of the whole membership. The government of the Association is, therefore, carried on by a minority, who formulate the policy to be pursued. When that policy is successful no one troubles—the passive members remain quiet and peaceful; but when an emergency arises and failure, or even the suspicion of failure, takes the place of success, then you will find a revolt against the executive. This is seen constantly in the various disputes of trade unions, where a ballot often shows the voting against the executive of the union, and although I do not pretend to suggest that anything could possibly alter this feeling, yet I think that we should ask ourselves whether we cannot increase the number of members who will really take an active interest in the work of the Association.

One of my worthy predecessors, Sir Victor Horsley, in his address four years ago, described, with his usual clearness and lucidity, the Divisional atomic autonomy of our Association, and proved unquestionably the advantage of the present system over the old, but I really think that, with the increase of serious questions now developing on the medical-political horizon, we should consider whether the number of atoms (Divisions) forming the molecules—in other words, the Branches of our Association—should not have greater powers extended to them for their own peculiar areas. Advantage has recently been taken of this idea in the work of the Insurance Committee of our Branch, instigated by Dr. Buttar, in which an endeavour has been made to suggest to the Divisions in the metropolitan area the advantages of a united line of action with regard to the National Insurance Act. Whether any further advantage could be taken of this, so that certain resolutions of single Divisions should receive the sanction of the Branch before they are passed to the Representative Meeting, and so lead to a reduction in the number of the numerous resolutions on its agenda, should be considered. It is becoming a serious question whether we are not giving this present machine of the Representative Meeting more than it can carry—whether this meeting can really give the full consideration and attention to some of the questions now asked. Last year, owing to the exceptional crisis in our profession, four Representative Meetings were held within twelve months, and Representative Meetings are expensive luxuries. They cost money and time, and many members ask whether the meetings are really able to deal with all the various questions that are brought before them. Think, again, of the time which is asked from individual members when attending these meetings! A busy man might consent to attend for one or two days and vote upon all questions of policy, but will refuse three or four days' attendance, when he knows he has to listen to a local grievance of one Division, which could have been settled in a Branch Council meeting.

It has also been seriously questioned whether the one centre of the Association must not have recognized branches with paid officials throughout the kingdom to carry out its proper organization, and so perhaps lead to more of a local federation of the Branches; whether more frequent meetings could thus be held at less expense where greater local knowledge would enable the wants of a special Division to be judged. How is it possible for any one in this Branch to have any knowledge enabling it to judge the wants of a Division in Scotland? Finally, there is the necessity for greater facility for a referendum upon the main question of policy of the Association. Personally, I feel sure that had the Council taken a referendum upon a clear definite policy with regard to the acceptance or not of the Insurance Act, it would have given greater confidence to all members, and those who have been against the Act in any form would have been more satisfied. The extraordinary outburst of feeling last December, which some have attributed to every possible cause, was, I believe, due to the awakening of those passive members who had been disfranchised by our rules and regulations, because they do not trouble, or they are not able, to attend the meetings of their Divisions. These questions must be considered, because we have demonstrated our power of organization to the public, and our Association is now recognized as the voice of the profession.

Have we, as a profession, any reason to be grateful for anything in the past that the State has done for us? Has the State assisted our education? Has the State assisted our teachers by founding professorships, to be independent of petty routine work? Until quite recently has the State assisted to carry out original research? Science has generally had to depend upon private support. Lister's discoveries were made, in the first instance, during the spare moments of his other work. Until the last two years did the State endow or build any institution to assist medical teaching? At the present time, I believe, the University of London—if it is ever built—will be built by voluntary contributions. Again, in our degrees and diplomas there is no definite State control. In England there are eleven universities and three medical corporations, in Scotland four universities and three medical corporations, and in Ireland five universities and three corporations, all of which grant degrees and diplomas. Speaking briefly, the whole business is disjointed and without proper central organization; each university and corporation competing against each other with regard to the character of the degree or diploma, the only control being the General Medical Council, the majority of whose members consist of representatives of the various universities and corporations.

We have long agitated in this Association that there should be one State examination before any one is allowed to practise, whether he holds the highest degree or the lowest qualification. We require a one-portal system, one proper constituted body created by the State, to give the final test and examination before any one can practise medicine. We are only asking for that which is recognized in other countries as the hall-mark qualification of the State. The Association has already had drafted and printed a Medical Act Amendment Bill, at a cost of some hundreds of pounds, but I am afraid the last few years

have seen very little progress towards its becoming law.

Further, we consider that the State, having once granted this qualification, should consider it necessary to protect those who have been proved proficient to practise, and should prevent the wholesale selling of quack medicines, and the advertisements of institutes and of all characters of wonderful cures which delude the public; for in this wholesale selling of quack medicines we have a real grievance which Mr. Henry Sewill has ably ventilated. The Council of our Association has also appreciated this injustice when it published *Secret Remedies* with the analyses of the various remedies, and showed that anything could be sold, from simple sugar to the most injurious drug; that the Government stamp is the most expensive item for the proprietor to expend upon his wonderful remedy; that the revenue by stamp duty to the Government is between £300,000 and £400,000 a year, a fact to be remembered when we know that the Government has appointed a Select Commission upon the sale of patent remedies. Alas! Commissions generally lead to nothing, but the fact remains that the price paid by the public for patent medicines sold yearly in the United Kingdom is estimated to be over £2,500,000.

However, all these grievances are well known, and it is not my intention to deal with these injustices, but to bring to your earnest attention the extraordinary changes which are taking place in our relation to the State and to the poor with regard to our professional work and duties.

When in 1905 we read that the late King Edward was pleased to issue a Royal Commission to inquire into the working of the laws relating to the relief of poor patients in the United Kingdom, and to report and consider any changes necessary, we in our profession welcomed the Commission, and anticipated that there would be at last some alteration in our present unsatisfactory system of not only Poor Law administration, but of the unfair and unequal medical treatment of the poor. When after four years the Commission issued the two reports, we hoped that some alteration would take place, and consequently we have been grievously disappointed that the whole question has been postponed; that the present system of medical treatment continues; and that no attempt has been made to assist those who require assistance. Instead the Government brought forward the Insurance Bill, which has since passed into law, and our disappointment was increased when we discovered that, instead of the wonderful health bill which we had hoped would have been built up upon the Majority or Minority Report of the Royal Commission of 1905, and which would have been of truly British origin, the Insurance Act of 1911 bears the well-marked stamp of "Made in Germany."

I have no desire to speak against the object of national insurance, although I must admit there are two distinct sides to this question, for it has been found that compulsory national insurance in Germany has not had a tendency to decrease the sickness-rate, and I believe the sickness-rates of the friendly societies go steadily up, notwithstanding that the death-rate is falling among the members of friendly societies as among the population at large, while writers upon this subject have shown that the sickness-rate—that is, the sick pay drawn—is greater in the centralized national societies, where the members feel they are drawing upon the public purse, and is least in the local lodges and branches of the great orders, in which the local members know that they have jointly to bear the burden. At our last Representative Meeting, one of the Representatives for Edinburgh stated that since the Workmen's Compensation Act had been enforced, the wards of the Edinburgh Infirmary always contained three times as many cases of hysteria and traumatic neurasthenia as before the introduction of this Act. We must, therefore, recognize this peculiar psychological fact.

The Government, in introducing the National Insurance Act to the public in its present form and condition, have attempted to build a house the wrong way; they have started with the roof before providing either a foundation or walls for the Act to rest upon. Our conditions with regard to medical relief differ totally from those of Germany, which took years to develop its insurance scheme, founded upon a basis of State medical service and State and municipal hospitals. Our Government has attempted a somewhat similar scheme, in as many months, upon the basis of nothing except the voluntary medical charities and its own failure as to Poor Law medical relief.

The Chancellor has created his Insurance Act upon our present bad system of "club" practice, and, although he has condemned, in strong language, this practice, yet he has followed the mischievous principle of badly-paid contract work, and finished by giving the majority of the number on the local Insurance Committee to the friendly society members. He should have inquired into the origin of "club practice." The *Lancet's* "Battle of the Clubs" would have shown him that clubs were originally started to afford sick pay and medical attendance to the class immediately above paupers—artisans, labourers, etc. The contributions were arranged so as to provide the doctor something, perhaps, taking an average half of what he would have charged. The clubs have since been extended to a higher class which could and ought to pay better fees. But the contributions are inadequate to pay for modern medical attendance, involving bacteriological investigations of secretions, serum-therapy, and surgical treatment. We know that club fees are so low that medical men cannot do justice to their patients.

I protest most strongly against the National Insurance Act being called a National Health Bill. It was introduced amid the greatest applause, being hailed as the greatest National Health Act of the age. Not only was our own generation to benefit, but future generations would be so improved that disease would become accident. It made special arrangements for tuberculosis—a special amount of money to be spent upon sanatoriums, although authorities state the sum is quite inadequate; we had special maternity benefits, and all promised well, but when we inquired and wanted to read about the other great scourge to humanity, not only to the original sufferer but to his children, what provision do we find for syphilis and venereal diseases? None! Our legislators appear afraid of the disease. Even the word is not mentioned in the Act, and when we read Clause 14, paragraph 4, these words:

> Where under any such rule as aforesaid payment of sickness or disablement benefit is suspended on the ground that the disease or disablement has been caused by the misconduct of the person claiming the benefit, such person shall not thereby become disentitled to medical benefit.

This is a most iniquitous clause. It is cruel, it is wrong, and it stultifies the Act as a national health measure. The ravages of venereal disease now go almost entirely untreated either by the public health or Poor Law medical service, with the exception that the advanced complicated cases enter the workhouse. Yet it is known that, owing to lack of adequate medical treatment, syphilis and gonorrhoea are eventually responsible for a large proportion of the pauperism of disease and insanity.

Dr. Mott, Pathologist to the London County Council, in his reports, expressed the opinion that syphilis is responsible for more insanity than alcoholism, and that it is the cause of practically all the general paralysis of the insane and locomotor ataxy. The Departmental Committee on Physical Degeneration reports that it leads to insanity, idiocy, and other diseases. What will happen under this Act, which takes from a man suffering from a contagious disease all payment of sickness or disablement benefits? It means that the sufferer will do nothing, and doing nothing in these cases means that he will allow the disease to obtain greater hold upon his constitution, and, alas! also seriously affect the future generation.

We know that the ravages of this contagious disease are multiplied, because they are kept secret and the disease neglected. Many even believe that this neglect is so serious that syphilis should become one of the notifiable diseases. Any Act of Parliament, to benefit the nation's health, should give every encouragement to the victims of this disease to be open with their doctors, open with themselves, to obtain proper treatment to get cured. Remember, it is the innocent, in many cases, and not the case-hardened sinner, who suffers most and for whom most can be done. Think, also, what a saving to the nation in money and health if the disease received proper original attention—money saved on future generations of diseased children; and, further, the numerous expensive sequelae of this disease to the original sufferer if neglected. Further, it

appears to me that it will be an extremely difficult question to determine, in some of the vague nervous diseases having a specific history, whether they have been caused by the misconduct of the person or not.

This system of taking away payment under these circumstances is wrong, and I have been surprised that a stronger outcry was not raised by our profession against this narrow-minded, puritanical policy of Parliament. Recognizing early treatment of tuberculosis to be essential, we neglect syphilis, a disease of the same serious character and danger to our nation's health, and we are to do nothing until it becomes more formidable and more difficult to fight.

Surely the guarantee given by the Government in the Insurance Act for medical attendance is an illusion. There will be many diseases that the doctor will not attempt to treat; the majority—in fact, all the notifiable cases of infectious diseases and lunacy—are already treated in rate-supported institutions, and with regard to hospital treatment, cases requiring the conditions of modern diagnosis and treatment with all the laboratory resources, and the surgical cases requiring operations, must still be treated in institutions supported by private enterprise.

One junior consulting surgeon wrote to the *Times* that he had done 500 major operations, and had seen 10,000 to 12,000 out-patients in one year, and this will continue unless the hospital authorities make a strong protest. Surely this proves that there is a great misapprehension of the real facts of the benefits which are likely to be given by the Insurance Act. The employer of labour, who is to be compulsorily taxed for his workman to obtain medical treatment, knows this, and knows also that he must still subscribe to private institutions if his workmen are to receive proper medical and surgical treatment.

We would welcome any Act that would make life happier, more healthy, more secure for the people, but we have felt that, in the form in which the Act left Parliament, no security was given for the improvement of the precarious lives of millions of people. There are millions unable to maintain themselves, and they receive no help except the Poor Law, nor do those disabled before they have made a certain number of payments, nor those too weak to gain admission to an approved society, nor those too poor to keep up the required payment; jobbing workers also are left out. A certain class who have good wages but are free from income tax will get a good share of the spoil; the benefits it is supposed to give will be given to people who already possess them; it has left alone the thoughtless, the careless, the poorer class of workmen, the casual, the unskilled labourer, the men earning small wages, and lastly, the widow and orphan. Where have the Government assisted them? In the whole of the extensive and expensive machinery necessary for the working of this Act the Government have left the really necessitous severely alone, and it is because they have been left so severely alone, because the two reports of a most thorough and expensive Royal Commission on the Poor Law have been ignored by this Government, that it is our duty, we who know that the present medical treatment of the poor is unjust and unequal, seriously to consider the whole question of medical treatment to the poor, and agree amongst ourselves upon some general scheme of reformation which we can press upon the Government.

Personally, I believe the time has now arrived when the State should give the people "free medical service"; that a low wage earner, say of under 20s. in a town and 15s. in the country, or whatever figure is agreed upon, is just as unable to pay any doctor a proper fee for proper medical services to his child or himself as the State has already decided he is unable to pay a proper fee for the education of his children; that the present system of the Poor Law for medical treatment, with its stigma of pauperism, is uncharitable and unfair.

We are confronted, in the present medical treatment of the poor, with the extraordinary amount of overlapping which exists by the four agencies—namely, Poor Law authorities, public health authorities, county councils, and voluntary agencies.

The cost is very great; the expense of the Poor Law administration is over 4 millions, of the public health another 3 millions. *Burdett's Hospitals and Charities* shows that the voluntary hospitals, dispensaries, and convalescent and other homes have an annual expenditure of over 6 millions. Thus we have altogether a total of 13 millions of pounds, and this does not include the expense of the work of the county councils.

Any brief study of our present Poor Law system will demonstrate why it has not been a success. The great report of 1834 contained no recommendation for the treatment of the sick, which was left by the State in a very haphazard condition. I must mention to those who have not read the first year's report of 1835 that the Poor Law Commissioners urged the new boards of guardians to put up the appointments of district medical officers to competition amongst the medical practitioners of the union, and to appoint the man who offered to take the post at the lowest figure. I think this abominable advice accounts for the miserable stipends given to medical officers—some as low as £15 per annum. Yet the State is now surprised that our profession is suspicious, and demands its rights before it works any new scheme.

There is no doubt that the inquisitorial inquiries of the relieving officer are objectionable, and the proof of destitution, followed by the stigma of pauperism, causes many poor persons to abstain from applying for assistance until too late.

In 1848 the Public Health Department was established, but instead of working in any way with the Poor Law, it continued to develop absolutely alone for the treatment of specific diseases, with its own paid officials and doctors; it possesses power of ordering a patient's removal to a State-supported hospital without any stigma of pauperism, a power denied to the Poor Law medical officer.

In 1870 a separate educational authority was established, originally for educational purposes alone, but it now provides medical attendance for the children. In my own Division of Westminster, when the question of school clinics was debated, many of us opposed their adoption, not because we did not recognize their necessity, but because we objected to the limited character of treatment, the speciality of a few diseases, and the addition of another medical charity; in all the discussions upon the treatment of ringworm and eye complaints, very few knew of the thousands and thousands of pounds which had been expended upon the special hospitals for these diseases by the Metropolitan Asylums Board. It was never allowed that any good could be made of our present organization, and everybody appeared horrified when it was suggested that our Poor Law system might be utilized. Now, the State, instead of boldly recognizing the deficiency, again adds something new, and school clinics are one of the latest additions to the already overlapping system for treatment of the poor.

In considering any question of reform of the medical treatment of the poor, we must not forget the extraordinary good work which our profession has so long gratuitously given to the poor and to charity through the voluntary hospital system, but it must be recognized that the endowed and voluntary hospitals are not sufficient for the needs of the sick poor. They provide about 25,000 beds, or but one-fourth of the number of sick beds available in the workhouses and workhouse infirmaries. The voluntary hospitals are chiefly concentrated in London, in a very limited area, and the larger provincial towns, and we know that acute illnesses are chiefly the cases admitted into these hospitals. That people who could afford medical treatment at home or in private institutions take advantage of charity is common knowledge, and I have often wondered how long the present system of government of the voluntary hospitals can exist. Their increasing number and individual growth is so great that the public will soon demand some inquiry into the increasing demands of their different managements. Charity supplies over six millions annually for the upkeep of hospitals, dispensaries, convalescent homes, etc. Can we honestly say we have an ideal state of affairs? Can the present system be defended when we know there is really no co-operation amongst them—worse, no central board of control? Each institution is in competition with its neighbour for subscriptions, advertising the numbers of patients medically treated, and quoting the attendance of the out-patients, one of the greatest iniquities affecting the members of our profession practising in poor neighbourhoods. Recent speeches of Labour members show that the working men

accept hospital treatment not in the form of charity but as their just right.

The coming of the Employers' Liability Act has largely altered the character of an accident. Formerly, a patient meeting with an accident depended upon charity for everything; now the employers must look after those in their service. Consequently charity gives way to the patient's right. Surely, if lodging, food, and wages are his rights and paid for by insurance companies, why should hospitals and the doctors in these hospitals remain the only charity? Hospitals should insist upon receiving a fair grant in case of accidents, and the doctor who helps the patient to regain his health should receive payment in the same way as the lawyer who helps him to gain his money compensation.

We must accept these independent changes in the minds of the people of the day—the whole question of charity has altered, and the sooner our profession realizes the change the better. I believe the whole change in charity started with compulsory education. This was the commencement of the State taking over the paternal patronage of the people and the commencement of the individual to think about his position; and further, I believe, the cause of Socialistic Medicine, if one can use this expression, has been increased by the State recognizing that the child should be in a fit condition of health to attend school, which has made medical inspection necessary; that this should be followed by medical treatment was only a rational corollary. This may enable us to appreciate the strong opposition of our fathers to compulsory education; they saw that this was simply the beginning of the individual responsibility of the parent being taken over by the patronage of the State. I think this cannot be too strongly appreciated by our profession, and I agree with Sir Victor Horsley, that State medical work should not be muddled up with charity, and that the medical profession should receive adequate and proper remuneration for their services to the State.

I agree with the Minority Report of the Poor Law Commission that the constant overlapping and unnecessary expense of the various authorities in the medical treatment of the poor show the need for a united medical service; that the Poor Law and public health authorities should be merged; that the present condition of these two rival authorities is detrimental to the health of the nation, as they are practically without communication with one another, and working on diametrically opposite lines; that there should be a National Medical Service, free to the people. This report shows that the idea is not new. In his evidence before the House of Commons Committee on Medical Poor Relief, 1844 and 1854, Dr. Wallas advocated a system of free public dispensaries all over the kingdom, with complete medical inspection. In Ireland there is a universal dispensary system freely available for the whole wage-earning class, without any stigma of pauperism, and in the Twenty-Second Annual Report of the Poor Law Board, 1869, this was seriously considered by Mr. Goschen. In their evidence before the last Commission of 1905, the chief medical officers of the Local Government Boards of England, Scotland, and Ireland, agree as to the lack of a unified medical service. That free medical service would affect a single member of our profession I do not believe for one moment—it does not necessarily involve gratuitous provision of medical treatment to all applicants. That free medical service will be abused I do not believe. We read of the same arguments against free education—that a large number of schools would be immediately closed when the Act came into operation—and the result has been an increase, a large increase, of private schools.

Again, can any medical man say that compulsory vaccination has been abused? I asked a public vaccinator in a rural district whether his own patients took advantage of free vaccination, and he assured me most emphatically no! and I think we can safely assume that free doctoring will not be abused on any appreciable scale. I believe, however, strongly that in the public interest, as well as the interest of our profession, medical treatment should be given on the lines of private practice, and I have failed to appreciate the reason or necessity why the Minority Report insists upon an all-time service, for surely the treatment of the individual patient is best carried out by the individual doctor; it would not be fair that the man who does not contribute should have any facility given him for choosing his own doctor. He must attend at stated times for his treatment and, when confined to his bed, be satisfied with the doctor sent to him. I see no objection to the suggestion that there should be some transference of the Poor Law service to begin a reorganized public health service. Of course, there must be readjustments, and every opportunity should be given to the older medical officers to resign, before they attempt the new service, in which case fair and just compensation (of, say, two years' salary) should be given. As a matter of equity the State must compensate for loss as a result of new legislation.

Every borough in London or the district should be mapped out into areas or wards, just as we have now under the Poor Law, but probably smaller, and in each area there should be a properly equipped clinical surgery, fitted up in such a manner that the same building would do for a school clinic. At these surgeries the district medical officer would attend at stated times every day, and it might be possible, upon certain other days, for specialists upon various diseases to attend and see the cases referred to them from the medical officer, all receiving a fair, moderate remuneration, as agreed by the Association.

It is distinctly to be understood that the medical officer should be a practitioner residing in the district, and he would, assisted by district nurses, visit the sick unable to attend at the surgery or dispensary in his own area, and those patients unable to receive the proper care and attention in their home surroundings he could order to be removed to the infirmary or—as we shall call them—State-rated hospitals.

The district medical officer would be under the supervision of the medical officer of health, to whom he would make, either daily or weekly, reports as might be necessary, and we would have co-operation established between the two classes—the clinicians and the sanitarians. Further, his care should include the education of the people in his district—how to live, the advantages of fresh air, cleanliness, moderate living in eating and drinking. It is hoped, by the distribution of this knowledge, that sickness will be diminished, and, with this condition, his actual work will become less.

There should be a more equal scale of salary for all medical officers, and the time required of him should not be too great. It is essential that he should not lose his own individuality and become an efficient machine. This is one of the great arguments against the "whole-time service." He should have plenty of time to undertake private practice, and I am sure if proper surroundings and arrangements are given for the medical and surgical work, and every facility for taking advantage of our progressive science, this class of practice will induce some of our better men, keen and interested in their work, and who are tired of the neurotic tendency of some of their better-class patients, to apply for these appointments.

In rural districts, where there is an extended area, all this could also be done in a modified degree; but these districts afford another argument against the whole-time-service man, who would be worn-out by travelling, seeing only a few patients.

To speak of a National Medical Service, as outlined by Dr. Benjamin Moore, I think, is absolutely impracticable for our generation. Whether "The Dawn of the Health Age" will come in the far future, when every one becomes some form of paid official of the Government—either to work for the State or to see that the work is done by another official—I cannot say. However much we may appreciate the bold and clear manner in which he brings forward his views, we must agree that such a system of medical service can only come into existence when Individualism has been absolutely absorbed by Collectivism, and the first person singular ceases to exist.

The last and the greatest problem to be considered is the institutional treatment of the future. This question is, I believe, receiving the attention of our State Sickness Insurance Committee in relation with the Insurance Act, and, in view of this, I hesitate to give my views. But it must be admitted that it is the duty of the State to give a sick man away from his work the best attention to restore him quickly to health. This is purely a business transaction. As we know from the figures of the present Insurance scheme, an increase of one day in the average duration of sickness involves a charge of 1s. 8d. a head on

the Insurance Fund. Therefore it will become imperative for hospital accommodation to be found for insured persons. It must follow from the insidious manner in which the State is slowly and surely taking into its charge various classes of patients, with the monopoly of the care of many diseases, that in the future we shall have three different classes of hospitals:

1. *The State-Rated Hospitals.*—Candidly, I fail to understand the great outcry and objection raised against State-rated hospitals. They exist in the majority of other countries, and they exist here successfully in our fever hospitals, and they would be the hospitals to receive casual cases of urgency, accidents, etc., and the severe cases sent by the district medical officer. They would be used by the teaching medical schools for students, and the increased clinical field opened by the larger number of cases would be advantageous for instruction. They would have the same kind of staff as the present voluntary hospitals, but it would be considerably increased or diminished according to the necessity of each institution. They would be under the management of either the County Council or the Local Government Board, with an Advisory Medical Board, but every member of the staff and visiting staff would receive remuneration for his services. Some of the voluntary hospitals and all the present Poor Law infirmaries could be utilized for these State hospitals, compensation being given to any vested interest taken over. If any out-patient department would be used, it would be of a consultative character of cases sent by the district medical officers or other general practitioners in the neighbourhood.

2. *State Insurance Hospitals* must necessarily follow, as I have said, the Insurance Act if any success is to attend medical benefits. They would be under the management of the local Insurance Medical Committees, and the cases would be attended by the medical attendant to the insured patient. For in these cases, I suppose, it will be necessary for the doctor to remain in attendance; there may or there may not be a resident staff, but I presume medical extras under the Act will include fees in special cases for consulting surgeons or physicians.

3. *Paying Hospitals for Various Classes of Patients.*—This, I believe, will be the true charitable institution of the future, and will still require the energies of those good hospital workers who have done so much in the past and for whom greater work will be open in the future. For we know in the profession the many difficulties in the way of the poorer middle class obtaining proper medical and surgical attendance; we know the many cases willing to pay small fees if only proper provision has been made for them, and which have had to go into the general wards of charitable institutions. So it is hoped that the future will show all benevolent persons the good work they can do by subscribing to assist in the construction of properly equipped private institutions supplying a good maintenance to patients for the lowest possible fees. We know this cannot be done without charitable help, although assisted by the higher fees obtained from the more wealthy patients.

In conclusion, I trust I have said enough to give some food for reflection. That our medical treatment of the poor is not the ideal, or the best; that we must have better co-operation of the various services; that the stigma of pauperism must be taken away from the medical treatment given to the poor. It is the duty of our profession to insist that the best medical treatment should be given to the rich and the poor equally and fairly; personally, I believe this object can only be attained by a free and open united medical service.

And if it is the duty of the State to do all this for the individual, then, I maintain, it is the duty of the individual to do something for the State. If the State makes the individual healthy and strong to maintain his vitality, then it is the duty of the individual to give some portion of his health and strength to maintain the vitality of the State, and the individual must be trained and taught in such a manner that he is able to assist the State. By this he will show discipline and unselfishness. And I go further, and I say, if it is compulsory for the country to give the individual his best vitality, then it should be a compulsory service by which the individual should assist his country at any time to maintain the best vitality of the nation.

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BIRMINGHAM BRANCH.

MODERN SOCIAL CHANGES AND LEGISLATION AS THEY AFFECT THE MEDICAL PROFESSION.

By E. N. NASON, M.D.Camb.,
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If we take the trouble to study the social changes of the past fifty years, we shall find that whenever they interfere with the personal and direct relationship between the doctor and his patient they do harm to both.

In the past the relationship between the doctor and his patient was always direct, and had certain primary objects—the restoration of the patient to present health and usefulness and the giving of help and guidance for the future. Both these objects, although the latter contains the germ of modern preventive medicine, were purely personal between doctor and patient. The patient chose his doctor and paid, or did not pay him, for services rendered, and no third party entered into the arrangement. The ethics of the profession and general regulations of medical practice were founded on this personal tie, and it was accounted a crime as serious as violation of the confessional to divulge any secret communicated or discovered in the course of professional examination. It is, I believe, because modern social methods and legislation take so little account of this personal tie that medical men have been so universally alarmed and so profoundly affected by them.

The Friendly Societies.

If it be true that out of evil good may come, it is equally true that out of intended good evil often arises. It is a perfectly legitimate and indeed laudable act on the part of the individual to provide against certain possible contingencies which might otherwise overwhelm those dependent upon him. And yet insurance against premature death marks the first step in a path which has proved to be full of pitfalls and difficulties for the medical profession. Individual insurance against premature death was naturally followed by both individual and mutual insurance against sickness and accident. But from this most excellent idea have sprung up a whole host of new conditions nearly all inimical to the earlier and higher ideals of medical practice. To this idea the powerful organizations which we have been accustomed to call friendly societies owed their origin, and through them came the dark cloud of sweated contract practice which has overshadowed the profession for so many years. To this idea also may be traced many of the later social measures, like the Workmen's Compensation Act and the National Insurance Act.

Individual insurance against death, sickness, or accident at once introduces a new factor into that previously simple relationship. We have now the interests of the insurer to consider, and his interests are usually antagonistic to those of the insured. The examination of the patient by the doctor, instead of being a preliminary to treatment, may be with no other object than that of protecting the interests of a third party. The relationship ceases to be personal and direct, the physician tends to become the official.

When we consider the effect upon the medical profession of mutual insurance as carried out by the great friendly societies, we find it difficult to over-estimate the amount of injury that has been done. In the early days of the movement, when the majority of those who asked for medical treatment through the friendly societies were really of the very poor, the medical profession in its generosity and not foreseeing the future, offered its help towards making the movement a success. It agreed to treat the members on a charitable basis, and for the sake of simplicity—but, one now sees, very unwisely—accepted a small payment *per capita*.

The result has been that what was at first given in charity was soon claimed as a right, and is now used as an argument against conceding any better terms. Meanwhile the friendly societies have grown enormously in wealth and importance and have perfected their organization, while the medical profession has remained poor and, until quite recent times, almost unorganized.

The friendly societies of to-day, although containing a large proportion of members whose financial position gives them no claim on the charity of the medical profession, have taken full advantage of these facts. Their powerful organization has enabled them to dictate terms to individual medical men, who, from lack of organization, have in many instances been compelled to submit or starve. From time to time attempts have been made to obtain more just and reasonable treatment from these societies, but always with the same result—failure; and always from the same cause—lack of union. From recent utterances by various officials of these societies it is abundantly clear that the same spirit animates them to-day and that they intend to pursue the same policy in the future *if* they have the chance.

Despite the enormously increased wealth of these societies, the improved financial position of the average individual member, the increased cost of living, and the vast increase in the cost and complexity of medical treatment, the payment made to the doctor has alone remained unchanged through all these years. These powerful societies—not realizing the difference between a trade and a profession, between material goods whose quality they can appraise and professional services of whose quality they are not in a position to judge—have always bought in the cheapest market. This policy has done untold harm to the public health and an equal disservice to their own members and to those members of the medical profession who have tried to serve them faithfully. But advantage has been taken of the original terms of agreement in another way. The medical profession, through accepting payment *per capita*, has gradually been forced into the position of itself bearing the sickness and accident insurance risk. Surely this risk ought to be borne by the society, which exists for the purpose of insurance, and is clearly no part of the duty of a healer of the sick.

We have, in fact, been insuring at a premium of 4s. a year a large number of persons to whom no insurance company in the world could afford to offer the same benefit at a lower premium than from 15s. to 25s. according to the age of entry. I have been at some pains to estimate (on the basis of an average term of eleven days' illness per annum, the friendly societies' own estimate, and accepted by the Chancellor of the Exchequer) what sum would insure an individual against the medical cost of such illness, and the figures I have given are the minimum and do not include the cost of treating minor ailments.

Workmen's Compensation Act.

So far the effects that I have mentioned are those which have followed on individual and mutual insurance, but in the Workmen's Compensation Act two new factors are introduced, both of which still further affect medical practice; these two factors are the State and compulsion.

In making the employer liable for compensation in all cases of accident to workmen *even when the employer is in no way to blame*, the State has introduced an entirely new and definitely socialistic principle. In effect, the State compels every employer to insure every person he employs. This introduces a further complication into the relationship between the doctor and the injured person. The State compels the injured man claiming compensation to submit himself for examination at the hands of a medical man whom he has not himself chosen, but who is acting in the interests of the employer. It requires great tact on the part of the employer's doctor to preserve unchanged his friendly relationship with the persons he examines in this capacity, and still greater tact to avoid all sources of friction with those doctors who are responsible for their treatment. In any case some of the cardinal rules regulating medical etiquette have to be by consent abandoned. The employer's doctor will constantly have to visit and examine persons who are under the care of other medical men, and it is quite impossible that this can always, or even usually, be done in consultation with them. When we contemplate the spectacle of a medical man visiting and examining, in the interest of a third person, the patient of another medical man who is not present, and when, in addition, the visit may not be desired by either the patient or his doctor, we have some measure of the extent to which modern social legislation has compelled us to disregard ancient medical rules.

Again, when a compensation claim goes to arbitration, the employer's doctor has to examine the claimant in order to detect any exaggeration or misstatement. He will then have to give evidence in open court on the result of his examination. This is hardly consistent with the Hippocratic oath!

I was once asked by an employer to visit a certain road where he had reason to believe that one of his workmen, who was receiving compensation on account of an old Pott's fracture, was employed in erecting some fencing. I was to watch his performance with a view to giving evidence in an arbitration case which was pending. I need hardly say I declined, but the very request illustrates the fact that the employer looked upon my relationship to the workman as being rather that of a detective than a surgeon. I am afraid that after all there is something to be said for this view, since the surgeon who undertakes to examine in compensation cases should have the eyes of a detective as well as the knowledge of a surgeon if he is to protect the interests of those who employ him.

Human nature remains much the same however much the relationship between doctor and patient may change, so that when a man is confronted with the alternative of 30s. a week and hard work or £2 a week and no work at all, the temptation to unduly prolong the disability is occasionally too strong for him. When a man is in several benefit societies this temptation often arises, and is answerable for a large crop of malingerers who are becoming increasingly clever at aping pains they do not suffer and defects which do not exist even in their own imagination.

But there are degrees of malingering and various types of malingerers:

1. There is the unconscious malingerer or the malingerer *malgré lui*. The man who has had a more or less serious injury or illness, and is afterward obsessed with the idea, which is too often fostered and encouraged by his friends, that he will never be the man he was, and in consequence makes no real effort to return to his work. He may have been an exceptionally good workman up to the time of his accident or illness, and not the kind of man one would have expected to shirk work, but it is sometimes extraordinarily difficult to persuade him to so much as attempt any work. This man is not a conscious fraud and, strictly speaking, not a true malingerer, but modern conditions, by removing his chief inducement to work, foster the continuance of the effects of his previous disability. This state of mind his friends may call neurasthenia, and others ergophobia.

2. Then there is the man who has had some sprain, strain, or contusion, with consequent adhesions or stiffening of joint and tendon. In order to remove this disability the stretching or breaking down of these adhesions is necessary, but as there may be some pain in the process, this part of the treatment is put off indefinitely and the man remains idle. The compensation he receives deprives him of the salutary stimulus which the pinch of poverty previously provided.

3. Then there is the man who purposely exaggerates his symptoms. The pain in his back, which began when he was lifting some weight and which was probably more rheumatic than traumatic, is made the excuse for prolonged disability. It is described as being so severe as to make all work impossible, long after its really disabling effects have passed away. This man is a real malingerer and is wilfully defrauding his employer. He is a very common type, but one that it is very difficult to deal with. Under this head may be classed the numerous cases of exaggerated defects of vision. Fortunately these cases, in which the original injury to the eye has usually been of a more or less trivial nature, are not so difficult to detect.

4. Lastly, there is the man who deliberately injures himself or increases or prolongs the effect of an injury by his own act. Such cases are not so rare as might be supposed. I have known cases where a finger has been deliberately injured in order that compensation might be obtained, or more often that the employer might be prevented from putting in force a threatened dismissal. A recent case was that of a man who had a slight injury to the eye. This he prevented from getting well by applying a caustic to the conjunctiva on the lower eyelid. He did this just before his case came on for arbitration, but the fraud was detected, and he was subsequently sentenced at the assizes to six months' hard labour for perjury.

Considering the ease with which a man may assume pain or loss of power, and the great difficulty in disproving his statements when persistently and consistently asserted, I am only surprised that malingering is not more common. The only way to prevent it is to impose a really heavy penalty in any clearly proved case. A man would then be too much afraid of detection to lightly embark on a course of systematic deceit.

After years of experience one comes to scent the malingerer at an early stage of the examination. He usually begins by disclaiming any real desire for compensation, and pours undeserved contempt upon those who do. He draws unfavourable comparison between those who refrain from working when they might, and himself, who is all eagerness to return if only the pain or stiffness would allow him. His lumbar pain is so excruciating that he could not stoop to pick up a sovereign if he saw one lying in the road. His shoulder is so stiff and painful that he could not raise his arm above his head if the accomplishment of this act, which he may have done already in removing his shirt, would bring him a fortune. He complains that the amount of compensation he is getting is not enough to keep him and his family from starving. But he is careful not to mention that he is receiving from 10s. to 20s. a week from various other sources. His symptoms are always exaggerated, and he gives one the impression from the outset that he is on the defensive.

But it is much easier to convince oneself that a man is malingering than to convince a judge or jury, and the majority of these cases have ultimately to be decided by the county court judge. In this process the position of the doctor, who by careful observation has convinced himself that he is dealing with a malingerer, is not an enviable one. After giving his opinion in the witness-box he will have to submit to a severe cross-examination. He may have his opinions directly contradicted by some other medical man, who, with less knowledge of the case or of the man, may have been retained in support of the man's contention. It surely, however, is not the function of the medical witness to champion a cause, but to state facts and such opinions as may legitimately and logically be drawn from them. It cannot be his duty to attempt to bolster up a case by suggesting plausible but pathologically impossible theories, whose fallacy is apparent to any medical man, but which are quite likely to pass undetected by the judge. Unfortunately this is a spectacle only too common, and one that does not enhance the dignity of the profession in the eyes of the public, and goes far to justify the proverbial cynicism or the cynical proverb which runs, "Where doctors differ who is to decide?" One is tempted to answer, not the county court judge, who, to do him justice, is generally well aware of this, and with increasing frequency seeks the aid of a medical assessor. The present custom of appointing permanent assessors attached to districts, for various reasons, has not proved a success. It is far better that an assessor should be appointed specially for each case, so as to enable the judge to obtain the highest expert opinion on the particular case he is trying.

It is quite clear that in the near future there will be urgent need for experts in the art of sifting the real from the assumed or exaggerated, and assessing at their true value the various disabilities for which compensation or sick or accident pay may be claimed. An ideal assessor should have special knowledge of the kind of case which is brought before him. He should have a logical and judicial mind, not easily swayed by sentiment, and should be a man in whose absolute impartiality both sides have complete confidence.

The Midwives Act.

The Midwives Act has been the cause of serious loss in a certain class of general practice. In many districts a large proportion of the midwifery work, which was formerly done by medical men, is now done by registered midwives. Many of these women, though registered and uniformed, are not qualified by any examination, but the Government stamp of registration has hall-marked them in the eyes of the public. No doubt in the end both the profession and the public will gain by the Act, for the former will be spared much trying work and much night work, and the latter will eventually obtain a fairly adequate service at a cheaper rate.

But for the present the doctor is getting about one-tenth of the fees he did, and is saddled with all the difficult and anxious cases, for the majority of which he has not been engaged, and for which, in many cases, he is never paid. People of the lower artisan class do not usually make provision for what after all may not be needed, so that when the need arises, it is usually found that no provision has been made for the doctor's fee. This difficulty might be got over by a properly regulated maternity society, into which small weekly payments could be made in advance, and it could then see that the members had proper attendance at their confinements, and that the doctor, when needed, was not left unpaid. I hope that the maternity benefit in the National Insurance Act will be so worked as to meet this difficulty.

The various Notification Acts place further duties and responsibilities upon the doctor, and still further interfere between him and his patient. The advantage, however, to the community in most cases outweighs the burden placed upon the doctor; but I doubt whether this is true of the Notification of Births Act, where the duty of notification should never have been placed upon the doctor at all.

The National Insurance Act.

In this Act the principle of compulsory insurance is applied to some 14,000,000 persons. It provides for the medical treatment of an enormous number of persons who can and already do provide for their own treatment, but, with the possible exception of the sanatorium benefits, does little or nothing for the very persons who stand most in need of help. It is almost inconceivable that any sane person drafting a bill, whose main object is to provide medical treatment for millions of persons, should do so without consulting the medical profession, on whose willing co-operation the success of the whole scheme depends. I can imagine no more foolish or fatal mistake, nor one the result of which could have been more easily foreseen.

As the bill was first introduced, it would for many of us have done away with private practice altogether, and given to nearly all our work the taint of contract work. Such work must always curtail to some extent the liberty both of the doctor and of the patient, and is altogether alien to the spirit of a profession as distinguished from a trade. If the National Insurance Bill had passed and been accepted by, or forced upon, the profession in its original form, we should have for ever lost our independence, and, as a body, become the slaves of a Government department and the bond slaves of the approved societies. We should have been saddled for all time with contract practice of the very worst type. This result would have been only too probable had there been no British Medical Association. No other body existed, or could have been formed in time to offer an organized and determined resistance to those clauses of the bill which, if carried into effect, would have been equally detrimental to the medical profession and to the public health. This attack from without has brought such unity of aim within the profession as should cause us to be treated in the future with more respect than we have been accustomed to in the past. When has the State ever dealt generously or even fairly with the medical profession? The State, as represented by both political parties, has ever exacted from the profession the maximum of service for the minimum of reward.

The willing horse has been mercilessly worked, but the corn supplied has not increased in quality or quantity, and has never been adequate. To obtain a registrable qualification an increasingly long, arduous, and expensive course of training and an increasingly high standard of efficiency are demanded, but the protection granted is illusory and the privileges little better than worthless. It is, indeed, the public, not the profession, who are protected. Why should a medical man who gives his services gratuitously to a hospital, or serves His Majesty in the navy, be compelled to attend the coroner's court without fee? Why should a medical man be compelled to spend days at the assize court, perhaps many miles from his practice, and then be able to claim only the miserable pittance of £1 1s. a day? A member of my own Division had to attend the last Warwick assizes at a distance of twenty-five miles for this fee, while he was compelled to pay £2 2s. a day to his substitute. Why should a medical man have to supply certain certificates without fee? Why should the State compel a

midwife to call in the aid of a medical man in certain contingencies and yet make no provision for his fee? The truth is the State has always exploited the generosity of the most humane profession, and, like many private individuals, has got the credit for benevolence at the expense of the doctor.

It is of paramount importance, if the new order of things is to secure a real and permanent improvement in the health of the nation, that the terms of service under the Act should be such as to attract men of the highest possible stamp, both as regards intelligence and character. For it must be the object of the State, if it interferes in medical practice, to obtain for those it takes under its charge the best rather than the cheapest medical service, for the best will in the end be the cheapest. If those working under the Act are to be dragooned by a Government department, overworked, underpaid, and their time wasted by vexatious regulations, nothing but harm to the nation can result.

In order that the medical service may be truly efficient the following conditions must be fulfilled:

1. The relationship between the doctor and his patient must not be subject to any interference on the part of the State. It must resemble as closely as possible that obtaining in private practice.

2. Payment must be made for work done, and an end made of *per capita* contract agreements.

3. The doctor must be able to earn from his practice a sufficient income to requite him for his long and expensive course of training and for his hard and trying work, and the many risks it entails.

4. He must be able to do this without such overwork as would exhaust his strength and diminish his interest in individual cases or deprive him of the leisure necessary alike for study and for health.

For that which attracts into the profession the best stamp of men is not so much the hope of material reward as the satisfaction which belongs to the successful conduct of a difficult case; to the many opportunities for doing useful work; to the human fellowship and sympathies which centre round the sick bed; to the close friendships which grow so rapidly and become so firm and lasting between those who share a great anxiety; to the satisfaction to the scientific mind in adding something to the sum of human knowledge, and to the philanthropic mind in taking something from the sum of human suffering.

In the present necessarily heated controversy so much space has been given to the no doubt important question of fees that the far more important question of the health of the nation, which is the profession's true object, has been comparatively neglected.

For, although the doctor who thinks more of his fee than of his patient quickly degenerates from the physician into the charlatan, so, too, will the doctor who is overworked and underpaid soon change from the careful, painstaking physician into the rule-of-thumb empiric, and from the cheerful, willing servant to the grudging slave. You cannot divorce the true interests of the profession from the true interests of the nation; they stand together, or they fall together.

The storm cloud of the present crisis, though dark and threatening, is not without its silver lining. It has brought to the profession a unity of aim which has long been desired but never before reached. It has thrown us back upon first principles. It has taught us that, if our aim is as it should be, and as I believe it always has been, the welfare of the nation, we shall have behind us the support of all that is best in the nation in working out our own salvation.

EAST ANGLIAN BRANCH.

CHANGES IN THE CONCEPTION AND TREATMENT OF INSANITY DURING THE PAST TWENTY-EIGHT YEARS.

By JOHN TURNER, M.B.,

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I PROPOSE to give a short account of the changes in our conception, classification, and treatment of insanity during the past twenty-eight years—a period of which I am able to speak from personal knowledge.

At the outset I may state that in my opinion, while we have progressed in our general knowledge of the nature and mechanism of insanity, we are not able to record much real progress in our treatment of this disorder. Unquestionably at the present time the insane are better looked after, their lives are rendered more bearable, and many more lead useful and productive lives than formerly. They are encouraged to work, and much care is exercised to find out their capacities in this direction; but when we come to speak of cures, even in the wide sense in which this word is used in asylum reports, I cannot see any progress whatever.

All over England, Germany, France, America, and the whole civilized world, are now numbers of enthusiastic workers, seeking not only to discover the real nature and cause of insanity, but also its cure, and in their attempts towards the cure of insanity they have accumulated facts which have greatly enriched our stores of knowledge in regard not alone to brain structure, but also to its functions.

The keen interest that medical officers generally now take in their work is one of the most hopeful features of the present day. Twenty-eight years ago, although there were brilliant exceptions, too often the superintendent of an asylum was some cultured gentleman, whose opinion on almost any subject but insanity was worth listening to, whilst his junior colleagues, generally chosen for their social or athletic qualities, even if they were interested in their work, produced little to show that such was the case.

We had a very simple and unsatisfactory classification. If a patient was noisy and excited, he suffered from mania; if he were low-spirited, from melancholia. Monomania was recognized by some of the more thoughtful, but did not find a place in the official classification. Patients defective in their habits were demented; the residue were idiots, imbeciles, and general paralytics; the cases, being duly labelled, possessed no further interest. The trouble was that patients would not conform to their labels; the maniac of to-day appeared to-morrow profoundly depressed, or vice versa. Some alienists got over this difficulty by dubbing the most obviously alternating cases *folie circulaire;* others ignored the individual vagaries and stuck to their diagnosis. The idea was almost universally accepted that there were distinct insanities—distinct nosological entities, like typhoid and scarlet fever. Juvenile general paralysis was unknown, and the intimate relationship between general paralysis and syphilis had not received—in England, at all events—much recognition. And yet under these conditions the yearly output of "recoveries" was as large as at present. The average duration of detention was no longer and the death-rate no higher.

But, as I have said, there was a bright side to this picture, for among the few students of insanity were mighty workers in the field of pathology, and it was hopefully expected that pathology would disclose the cause as well as the nature of insanity and afford a clue towards its treatment. One may broadly divide the period under review into three divisions:

I. *The Pathological Period.*

This began many more than twenty-seven years ago, and is identified in the early stages with the names of Griesinger in Germany and Sankey in England, but the study was only languidly pursued in England until in 1889 the appearance of Bevan Lewis's textbook gave it an enormous impetus. His book marks an epoch, and, although some of his deductions are now discredited, there is no doubt of the high scientific value of his researches.

A very important step in the furthering of pathological work was the opening of a laboratory by the London County Council in 1895. Dr. Mott was appointed director, and under his brilliant administration not only has he by his own researches advanced the knowledge of the pathological processes in insanity, especially in relation to the part played by syphilis in the production of general paralysis and tabes, but he has also trained many who have done good work of their own, and in this connexion the name of J. Shaw Bolton stands out prominently. Bolton's researches on the structure of the cerebral cortex are of profound interest. By the careful microscopic measurement of the different layers in the cortex

he has reached data which with a high degree of probability establish the part which each plays in cerebral function.

The aim of the pathologists was to establish a definite pathological basis for the different forms of insanity. This they have not yet succeeded in doing, or only to a very limited extent; but in my opinion they have produced evidence in favour of an anatomical basis. There are cogent reasons for Bolton's contention that the lunatic is born, not made, and that all insanity is associated with a deficiency in certain nerve cell layers in the cerebral cortex, or with cells inherently defective in structure.

II. *The Clinical Period.*

This in its modern development is largely associated with the name of Kraepelin, whose cardinal idea is that the different forms of insanity are distinct morphological entities, and that they can be differentiated from one another by the careful study of symptoms.

It is to this school that we owe the idea that mania and melancholia are only phases in one disease—manic-depressive insanity; and although, now that attention has been drawn to it, the great majority of alienists recognize that cases of pure mania or melancholia are practically never met with, yet this does not necessitate the adoption of the view that manic-depressive insanity is a nosological entity.

From Kraepelin also we get the term "dementia praecox," and a graphic and exhaustive account of its symptoms. This subject has dominated the whole world of alienists for the past few years, and has led to torrents of criticism and acrimonious debate. Unquestionably the name has come to stay, but there is still wide divergence as to what exactly it connotes. The abiding merit of Kraepelin's teaching is that it insists on the careful study of cases. We have to differentiate in every direction; excitement is no longer synonymous with mania or depression with melancholia, and so on; and to establish a satisfactory diagnosis of dementia praecox needs the most careful sifting of a large number of symptoms.

Although I have termed this the clinical period, it did not dissociate itself from pathology; it naturally rested on a pathological basis, and vigorously prosecuted a search, not only of the nervous system, but of all the tissues of the body, for evidence in this direction, and during this period clinical pathology came very much to the fore, and important researches were carried out on the blood and other fluids.

III. *The Psychological Period.*

In this, the latest period, associated especially with the names of Freud and Jung, pathology is no longer tolerated. We are distinctly warned by one of its ablest advocates against anatomical conceptions of psychic processes.

There is no doubt that we are greatly indebted to these men, who by their careful studies have let a flood of light upon many of the dark problems of insanity, but they cannot afford to dispense with the work of the anatomist. Each branch—anatomical, clinical, and psychological—is of equal value, and not one alone is capable of yielding the full truth.

According to the psychological school, dissociation of the "ego" or personality is the prime factor at the root of those large classes of cases termed respectively "hysteria" and "dementia praecox." The "ego" is split up and a new complex is formed, working more or less independently of the mutilated ego, and at the same time to a large extent, if not entirely, subconsciously. But although the patient is not clearly conscious of the activities of this newly formed complex, he or she experiences vague feelings of discomfort, dissatisfaction, or of unfulfilled (largely sexual) cravings. There is thus, as it were, a conflict in the individual, whereby the conscious part of the personality seeks by various means, of the nature of subterfuges, to submerge or keep down the painful feelings due to the activities of the split-off complex. Thus we may get what Freud terms a "defence psychosis," giving rise to what appears to the observers as meaningless or incoherent conduct, but which can be shown to be rational in the circumstances, if one can draw the activities of the split-off complex into the light of consciousness, and Freud and his followers claim to be able to cure a number of cases of insanity by this method.

The assumption of the split-off complex necessitates the further assumption of dissociation or disintegration of consciousness, or apperceptive dementia, because, instead of all the mental processes working to one harmonious end, some are drafted off in one direction, some in another. If we translate this into neurological terms we find that there is nothing startlingly new in it. It is the psychological side of dissociation of the nervous channels of the cortex; and it is these channels—or rather the areas which are believed to contain the mechanism for association—which Bolton has shown are most affected in the brains of the insane.

So with all the phenomena occurring in abnormal psychology, we may, so far as they are amenable to scientific treatment, express them in physical terms. And moreover, we may by means of diagrams greatly assist in the furtherance of our conceptions. Diagrams are very valuable aids to clear thought; unless atoms had been symbolized, the atomic theory would never have reached its present full development. There can be no doubt of the high value of the work of Freud, Jung, and their many British followers; but, speaking personally, much that they write is to me unintelligible unless we transfer their conceptions to a physical basis. I can picture a ruptured neurofibril stopping the passage of a nervous impulse, but not a split thought.

These doctrines have great value as a working hypothesis of what occurs, not only in hysteria and dementia praecox, but in every case of insanity, and afford a reasonable explanation of the symptoms in many cases hitherto found to be very baffling to unravel.

According to the view that I in common with some others hold, there is a lack of development, both quantitative and qualitative, varying in degree, of certain of the cortical layers of nerve cells, more especially the pyramidal, in every lunatic, and in every person who is susceptible of lunacy, and no one without this inherent defect can develop idiopathic insanity. In this sense, as Bolton insists, the lunatic is born, not made, and lunacy is an anomaly of nerve cell development. Nevertheless, to excite an attack of insanity in the very large proportion of cases an extrinsic factor is requisite; and, whatever the nature of this may be, it operates by producing a dissociation in the intercommunicating nerve paths connecting or linking together different nerve cell centres, chiefly in the cortex.

I endeavour to classify my cases on this basis, but the more closely one associates with, and the longer one lives with the insane, the more hopeless is the task of trying to sharply mark off one form of insanity from another. Those symptoms which the textbooks tell us are found only in this, we find also in that variety. We must be content to endeavour to appraise the relative value and intensity of the individual symptoms, so as to form some idea of the probable future of the case, and to discover in which niche of our classification it is most "at home."

Treatment.

Scarcely a week goes by without some startling statement in the press that the cure of insanity has been discovered. This generally refers to some procedure, may be of a surgical nature, by which one who is insane can be cured and rendered sane.

But apart from the actual cures for existing insanity, we are inundated with prophylactic measures for the prevention of the spread of insanity and the improvement of the race.

One scheme which finds much favour, not only with the public, but with a certain section of the medical community, is State regulation of marriage, but it is extremely doubtful whether, if practicable, it would in any way meet the case. In the first place, the assumption that the prevention of undesirable marriages would diminish the production of offspring is not very convincing. Probably if marriages were restricted, illicit connexions would increase, resulting in the production under most unfavourable conditions of more illegitimate children, more likely to swell the ranks of the insane. Secondly, if our aim were to produce a kind of prize cattle individual, whose value in the community was determined by his muscular development and physical fitness in general, there might be some reason in controlling marriage if we could thereby also control production.

It takes many sorts to form a flourishing community, and in these days of machinery mere bodily strength is one of the assets most easily dispensed with. The highest qualities of the brain are often found in association with a sickly body. Could we possibly, by legislative measures, contrive that only the physically fit should mate, we should, judging by breeders' experience, produce a stronger and more attractive race; but if this were done at the expense of the mental qualities, the result would be not a gain, but a catastrophe, to any community which achieved it. As a matter of fact, we know practically nothing of any means by which a desirable blend of the physically and mentally fittest is to be arrived at.

All we can reasonably expect is that, by legislative means, we could in some measure prevent patently undesirable or degenerate people from propagating progeny likely to be themselves undesirable or useless. This would be the case if greater facilities were allowed to the authorities of public asylums to detain cases which, although they may not be certifiable on a fixed date, are sure to relapse if discharged. But in this, the only practicable direction, the law insists on the discharge of hundreds of persons yearly, who, returning to their homes, breed, multiply, and relapse into insanity again.

The sterilization of the unfit as a means of stamping out insanity is another measure advocated. It, like the licence to marry, is a scheme which lends itself to newspaper reporters in search of any novel or startling remedy, but it is a measure that is not likely to be seriously entertained in England, for, were it enforced, what could it do towards lessening the incidence of insanity?

The suggestion is founded on deductions arrived at by breeders and students of heredity. But these deductions themselves contain a proof of its futility. What boots it to sterilize the unattractive, imbecile, degenerate, or insane members of a family, and allow the attractive or even the average members to propagate? This is what it would come to; for any taint in a family, so far as we know, does not restrict itself to any one particular branch, or to any particular members of that branch, although these may be the only ones with demonstrable signs of degeneracy—insanity or other nervous abnormalities. As a matter of fact, in the long run the more unfit an individual is to mate the less likely is he or she to leave descendants; the race dies out, and Nature sterilizes for us.

Among the more recent methods of dealing with the insane individual with the object of curing him of his insanity, I shall only mention psychotherapy. This is the latest form of exorcism; only drag out the evil spirit into the light of day, and it will flee from you and you are cured. I have myself had very little personal experience in this form of cure, so that it is not becoming to me to dogmatize on its merits or demerits, but I must confess I am sceptical as to its efficacy in the majority of insane cases, and I do not consider the evidence which has been adduced to show its benefit as at all convincing.

The term is misleading; if there is such a cure it is not psychotherapy. The spoken word, the written word, the gestures and appearance which form the weapons of the psychotherapeutist are as purely material factors as a dose of calomel, and they can only act by the impression they make upon the sensory end organs of the subject; they produce psychical effects, but, as must always be the case, through physical channels. It is not as I imagine the psychologist *quâ* psychologist who effects a cure, but a physical alteration in nerve cells. True it is the reason of the psychologist which induces him to apply the remedy, but equally true is it that it is the reason of the practitioner which leads him to prescribe a purgative.

But apart from such etymological cavils there are, even should it be shown that the means is a good one, grave objections to the procedure—namely, its complexity and its duration. The latter removes it quite out of the sphere of practical politics as a routine means of treating all but wealthy or well-to-do patients. In a public lunatic asylum for poor people, at best only a few favoured cases could receive the necessary time and attention which must be expended if it is to be properly carried out. Perhaps then, as I have seen it stated, a case may after six months' zealous attention gratify the physician by showing signs of improvement. Apart from its problematical curative properties, there can be no doubt of the value of this method in investigating some of the most abstruse problems of the disordered mind.

Although it may appear from my account that we have very little to show for the large amount of time spent in investigating insanity from all sides, we are, I think, justified in assuming that we do know more about the subject than twenty-eight years ago.

We are more often able to give more precise scientific reasons in obscure, and not patently maniacal, cases, to show in what respect they are insane, than the dogmatic statements or vague formulae which formerly were so often all we had to offer. It is a step in the right direction. The only way that advance in treatment is possible is by the all round study of the subject. The enormous amount of research work now going on is not labour wasted. To borrow a metaphor used many years ago by Sir George Savage, it is like filling up an enormous pit; countless barrowloads of material are flung in without for a long time showing any effect; but each load tells its tale, and slowly but surely the chasm becomes obliterated.

With the spread of knowledge, not only in the field of insanity, but in other fields of scientific research, it is to be hoped that much of the unnecessary dread which now surrounds the subject may be dissipated, and the stigma now attached to its victims or their relatives removed. This will give treatment a better chance. Now it is the rule for friends to conceal or deny insanity in their relatives, until the disorder has become more or less fixed, chronic, and too severe to treat at home. Doubtless, if incipient nervous breakdowns were fully recognized and promptly cared for, many more recoveries would be recorded, and fewer persons would ultimately become chronic burdens to the State.

We hear a great deal nowadays about the increase of insanity, and the deterioration of the race to be feared; but all insane are not imbeciles or degenerates, and many of those who swell the ranks belong to that large class to which the term "dementia praecox" applies, who often reach adolescent life with the promise of abilities above the average. At the root of the matter in these cases there would seem to be a lack of durability in the nerve cells. These persons have the necessary cerebral mechanism for high mental attributes, but they lack staying power. It is, in my opinion, especially in this class that a recognition of the trouble sufficiently early might in many cases ward off a nervous breakdown.

But this would mean that these persons would have increased facilities for procreating their species. Why not? There are, as I have just said, insane and insane, and doubtless with many it is desirable that they should not beget, but with others, clever but unstable folk, it may be quite otherwise. I believe that the offspring of a clever parent who has had an attack of insanity stands a better chance of becoming a useful member of a community than one whose parents, whilst labelled sane, have not an ounce of intellect between them.

Gregor Mendel's discovery, half a century ago, of the peculiarities of reproduction in culinary peas when crossed, gives us reason to hope that the deductions drawn from his observations and experiments may be applied to human beings, and if so, it is not improbable that the so-called taint of insanity may, under certain conditions, be no insuperable bar to marriage in the possessors; nay, the possessor of such a taint may even be a desirable progenitor if he or she also combines other qualities or factors.

Personally I am no great believer in attempts to control destiny, but anyhow the knowledge that it is possible to breed true in a large percentage of cases from tainted or impure stock is comfortable intelligence, and should be the means of reassuring many troubled minds.

The burden of insanity is the price we pay for progress. All nations taking a foremost place in the world have already, or will have in time, a large number of lunatics. I believe that if England ever does reduce her number to any extent it will be only when she has lost her place in the front rank. Do not misunderstand me: it is not by the lunatic that we as a rule benefit—although there are many exceptions to this statement—but, among families in which lunatics occur are also often to be found men and women of great abilities. In these there is, we may suppose, the proper blend of instability with high attainments which makes for progress. Nature is ceaselessly carrying out experiments, and the lunatics are her failures.

All progress, as we understand the term, is the outcome of the activities of persons of high mental qualities and unstable nervous systems. The possessor of the stable nervous system is the placid bovine individual who is contented with his surroundings; but discontent is the very foundation from which all progress springs.

In conclusion, it appears to me that as the result of the labour expended on the study of insanity we are beginning to realize that insanity is not necessarily the bugbear we thought in the past. All insanity does not imply degeneration; we cannot make progress without that condition of the brain which makes for insanity.

YORKSHIRE BRANCH.

A PLEA FOR HARROGATE AND OTHER ENGLISH HEALTH RESORTS.

BY

CHARLES GIBSON, M.D., J.P.,

President of the Yorkshire Branch; Physician to the Royal Bath Hospital, Harrogate.

IN the course of his address, on his installation as President, Dr. Gibson spoke as follows:

Notions of medicine have changed; men now understand physiology and believe in helping Nature in every possible way. How little we really know and how little we merely believe we know it is difficult to say, for simple authority is still largely the guide in ordinary medical practice. Nevertheless, we certainly have at the present time a much deeper insight into the exact character of disease than had our forefathers. We recognize that disease is the penalty paid for the violation of Nature's laws, whether consciously or unconsciously.

While we look upon physiology as the chief foundation of rational medicine, the science of medicine has been said to be the work of art in the field of Nature, but among many members of the profession there has been a want of trust in Nature and an over-trust in art, just as there is in physiology and pharmacology a tendency to deny anything where a scientific explanation cannot be given.

The peculiar and unexplained cures which are often effected by natural mineral waters confirm and justify the practice of spa physicians, and practical experience in the hospital is of more value to the doctor, from the patient's point of view, than any amount of research in the laboratory. The spa doctor does not belittle or dispense with the use of drugs, but uses them only as an adjunct, believing that the patient in most cases has had every advantage to be derived from their use before being sent to the spa.

In times past spa treatment was the subject of considerable scepticism and was regarded as being on the borderland of quackery, and we all know that no quack is worse than the professional quack; but now the spa doctor is recognized as a specialist who co-operates with his medical colleagues and is becoming more understood and looked upon as a valuable collaborator, and balneology is now one of the sections of the Royal Society of Medicine.

Of all the products of Nature or Art, water comes nearest to that universal remedy, that panacea, that elixir of life, so long sought after but as yet undiscovered. A large number of people look for panaceas, thinking that when found life will be easier and its privileges more apparent. Water is necessary for the digestion and solution of food; it is an essential alimentary principle, more necessary to our existence than solid food. Natural mineral waters produce effects far beyond what can be accounted for, either by their chemical composition or the power of their known constituents or by their temperature. As Gustave Monod said:

> These qualities may be due to minimal quantities of the other salts in solution, to continuous synthesis, as described by Gautier, to radio-activity, or to some kindred property to be discovered by the Curies of the future.

At the present time it is believed by many that the presence of radium is the explanation of the therapeutical effects of mineral waters, and we are told radium emanation decreases arterial tension in arterio-sclerosis and increases the activity of the digestive ferments, but may also produce emaciation, albuminuria, and even haematuria.

Radio-activity is one of the many physical and chemical properties of waters which are only partially understood, and requires much careful and patient investigation. In 1905 Sir William Ramsay reported that the old sulphur well in Harrogate was markedly radio-active, and the water is recognized as the most powerful drinking water of its kind. If so much can be attributed to radium, may we not claim something for the subtle influence of barium, which we know is of great value as a heart tonic, and strontium, which aids assimilation and nutrition and improves the appetite, and calcium, which has such an effect on the blood, as well as sulphur, which Aretaeus the Cappadocian prescribed for skin affections and melancholy—that is, black bile—eighteen centuries ago? Who can say what effect these salts have upon the constituents of the water and what effect they have upon metabolism? As we have such an *embarras de richesses* in the Harrogate springs, is it not time they were thoroughly analysed? Our natural mineral waters may be taken for a considerable time without causing disturbance of the stomach or intestines, while distilled water withdraws the salts.

Mineral waters prepared artificially can never, in spite of the closest similarity of chemical composition, equal the natural product. There is always some, perhaps subtle, difference, and in the seemingly slight variation may be the peculiar therapeutic effect of the natural mineral water. We may build up a synthetical baby but we cannot give it life. The chemical and physical properties of mineral waters are not definitely understood, but it is a well known fact that to have their best and most marked effect they should be drunk at their source, the results being much more satisfactory than when they are drunk in bottled form.

The English spas are too frequently neglected by doctors in this country. Troops of patients go to foreign watering places every year. Why should they go? If it be mineral waters they require, they might quite as well, and oftentimes better, have gone to the spa in their own country. In Harrogate we have eighty springs, and no European health resort can equal it in the variety and richness in mineral constituents. In the Bogsfield alone we have thirty-four, no two being exactly alike. Our old sulphur spring is unequalled, our baths unsurpassed, and our sanitation unexcelled.

Surely it is a great gain to the invalid weary with the march of life, or worn with the anxieties of business—perhaps worried with a disordered liver, or restless with shattered nerves—to be able to go to a health resort within, it may be, a few hours of his home and his friends, where he can have the most efficient treatment in one of the most bracing and healthiest spots in England, and have the ablest advice of doctors who understand his habits, his manners, and his ways of life, and to have the advantage to be able to converse in his mother tongue, especially with his doctor, to know that his food is good and wholesome; and where he is under the protection of just laws, and where he can carry a camera if he wishes, and especially where the sanitation is of the best, and where there is no necessity for an after-cure.

In England, until the last few years, we have allowed our mineral waters to remain almost unknown, and, perhaps in consequence, doctors have sent their patients to Continental spas; and patients who have been sent abroad for gout and rheumatism and liver or skin disease, as they grow older object to expatriation, and quite naturally ask their doctor if there is no place in England where they can have treatment, and have the comforts of home life, as well as the society of their friends, and, after being sent to Harrogate, wonder—and wonder naturally—why they were not sent to Harrogate before.

If Harrogate were better known on the Continent, and its merits—its barium, strontium, calcium, lithium, ammonium, in addition to its radio-activity and its sulphur—were properly appreciated, possibly we might have the foreign doctors, if not jealous, recognizing the advantages of our spa, and sending their patients in legions.

Harrogate might be termed a family spa, on account of the extraordinary variety of the waters, as members of the same family might be sent here for quite diverse conditions and different treatment—that is, the father may be sent for gout, the mother for gall stones, the daughter for anaemia or neurasthenia, and the sons for skin or liver

disease, lead poisoning, and so on. Harrogate has the advantage that treatment can be carried out in some cases as well in the winter as in the summer, and our sulphur bath, from its soothing effect in some cases of gouty eczema, etc., has earned the title of the Velvet Bath. In 1626 Dr. Dean wrote concerning one of the first wells:

It dries up the too moist brain, and helps rheums, palsies, cramps, etc. It is good against inveterate headache, megrims, vortigo, epilepsy, convulsions, and the like, cold and moist diseases of the head. It cheers the spirits, strengthens the stomach, and promotes digestion. It's good in black and yellow jaundice and hippo, as also in cachexy and beginning dropsy, seeing it opens obstructions and expels redundant serosities, etc.

This is a formidable list of diseases to be cured by one spring, so that since we multiply that spring by 80 we ought to be able to cure almost any disease to which the flesh is heir.

In 1841 Dr. Granville, author of *The Spas of Germany*, in his *Spas of England*, says:

Among the few really important spas of which England can boast I hold Harrogate to be of such manifest superiority—indeed, I was almost going to say uniqueness—on account of the peculiar nature of its waters (if properly managed), its sulphur mud, now first recommended, and its situation, that I felt anxious to bring all its merits before the general readers more fully than any medical treatise had done before. Harrogate has the elements within itself of becoming a spa of the first magnitude, even to the extent of attracting foreign travellers.

Harrogate, from its position, soil, geological conformation, salubrity, and the beauty of the surrounding country, with its abundance of sunshine, small rainfall, and dry, bracing, breezy air, with its two climates, mild and invigorating, is justly termed the Queen of Watering Places, having home comforts, able physicians, and unequalled sanitation, and rivals the much-vaunted resorts of the Continent.

Harrogate stands pre-eminent to all places in Europe for the extraordinary variety of its mineral springs. It possesses springs analogous to almost all the mineral waters spread over the whole of Europe.

It has stood the test of time and is becoming year by year more popular.

PAROTITIS ASSOCIATED WITH GLYCOSURIA AND ACIDOSIS.

By LAURENCE M. ROUTH, M.B., B.C.CANTAB.,
LONDON.

THE association of unilateral parotitis with a transient but well-marked glycosuria is a combination of which I can find no trace in medical literature, and may therefore be of interest to place on record. I have permission to record this case from Dr. Harrington Sainsbury and Mr. Stanley Boyd, who kindly asked that I should be associated with them in its management.

The patient, a somewhat stout but active man of 58 years, first complained of swelling in the right parotid region two to three days after a short railway journey in a very crowded carriage on Easter Monday, April 8th, when he had been obliged to stand just by the window, which was open a few inches at the top, in such a position that a direct current of air was thrown on the right side of the face.

When I first saw him, on April 13th, there was definite fulness, but no tenderness over the site of the right parotid gland. There were also two small superficial and non-indurated ulcers on the tongue on the right side, apparently a direct result of the patient nipping his tongue during sleep after removal of his false teeth. There was at the same time slight relaxation of the pharyngeal mucosa, especially on the right side. The ulcers and throat were painted with a solution of iodine. There was then no constitutional disturbance, and the patient complained no further.

A week later he had a feverish chill, with a temperature that reached 102°, a kind of attack to which he is liable. This cold lasted four to five days, during which there was no advance in the original parotid swelling.

It was not till April 20th that the patient again complained of pain and tenderness over this area. The swelling gradually increased in size, involving also the submaxillary gland on the same side; there was no lymphatic infection. There was considerable pain and constitutional disturbance, the temperature reaching 103° on April 27th. Hot fomentations were then applied two-hourly, and gargling with hot borax solution was practised frequently.

The jaws could be separated only about a third of an inch and the teeth on the right side could not be approximated. There was also much swelling and tenderness in the region of the right tonsil.

On April 28th the condition was worse, breath very foul, and speech well-nigh impossible. As a preliminary to a possible anaesthetic in case of the presence of pus being proved, the urine, which, so far as the patient knew, had always been quite normal, was examined. It was very acid, specific gravity 1038, there was a trace of albumen and a large quantity of sugar shown by a well-marked reduction by Fehling's test. Both acetone and diacetic acid were also present in a well-marked degree; the urine was passed frequently and in large quantities, and there was considerable thirst.

This unlooked-for complication was dealt with by large doses of gentian and soda, and a bottle of Vichy water daily. There was never any tendency to coma, but there was intense restlessness, and sleep was attained only by the use of aspirin, soporifics proving useless.

On April 29th, the temperature still remaining about 102°, the mouth could be opened better, the right tonsil and palate were freely punctured under cocaine, pus being believed to be present; none was found, but the incisions bled freely, and the difficulty in swallowing became less marked, consequently the search for pus through an external incision was postponed. The swollen fauces and partly closed jaws rendered the administration of an anaesthetic undesirable; moreover, there was no clear indication of the locality of any pus; the uvula and tonsil were much displaced to the left; there was a considerable tender swelling of the right cheek, but little or no swelling behind the posterior edge of the ramus of the jaw.

Next day (April 30th) the slight improvement was maintained, though restlessness was still extreme. Both the parotid and submaxillary swellings were rather smaller and less tender. The uvula, which had been pushed completely over to the left side, was now returning to mid line. The urine showed a fall in the specific gravity from 1038 to 1030. The reaction was less acid. Sugar was present to the extent of 6 grains per oz., as demonstrated by fermentation test. Diacetic acid and acetone were still present. The temperature was somewhat lower, but still remained about 101°.

On May 1st more improvement, swelling of parotid less hard, tense, and tender; the submaxillary region was no longer tender, lingual ulcers healed. Urine, specific gravity 1021; just acid in reaction. Sugar 2 grains per ounce. No diacetic acid demonstrated.

On May 2nd: Urine specific gravity 1013, acid in reaction, and still contained a trace of albumen, but no sugar. On the following day examination of the urine gave a similar result. Coincidently the temperature dropped to 99° and did not rise again. The parotid swelling was now very little tender, and the submaxillary gland, which during the height of the attack was swollen, tense, and tender, could no longer be felt.

On May 13th the urine remained free from sugar, the trace of albumen was now no longer present, and the parotid swelling was now unnoticeable except to a critical observer. There was no tenderness. The patient had lost 1 st. in weight.

The case is of interest in showing the coincidence of the glycosuria with the height and extent of the parotid swelling, and the associated marked constitutional disturbance; also the gradual and complete disappearance of the sugar from the urine *pari passu* with the subsidence of symptoms; the fall of the specific gravity of the urine from 1038 to 1013 within four days is noteworthy. At no time in the past had symptoms ever suggested the presence of sugar in the urine, and on several occasions during other ailments the routine examination of urine had shown it to be quite healthy.

Did the parotid inflammation cause some auto-intoxication with secondary effect on the metabolism of the pancreas as a cause of the glycosuria? There is, of course, some functional correlation between the parotid gland and pancreas, in that they both secrete a juice materially aiding in the digestive processes. Or is it that the parotid and submaxillary also secrete some internal secretion, the temporary disorganization of which may cause glycosuria? The fact that the left parotid and submaxillary glands were not involved, and that their internal secretions were therefore intact, would perhaps favour the former view.

With regard to the origin of the parotitis, I am uncertain whether to attribute it to the initial draught, or to an oral infection through Stenson's duct. I rather incline to the former view, owing to the facts that suppuration did not supervene, although at one time it appeared likely, also that there was no lymphatic affection throughout, and that the lingual ulcers had been noticed two or three times previously after biting during sleep without any untoward result.

ELECTRO-CARDIOGRAPHY AND ITS IMPORTANCE IN THE CLINICAL EXAMINATION OF HEART AFFECTIONS.

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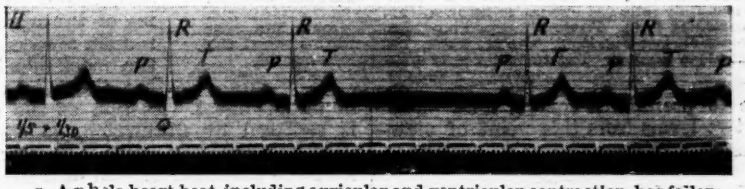
(Concluded from vol. i, 1912, page 1482.)

PART III.

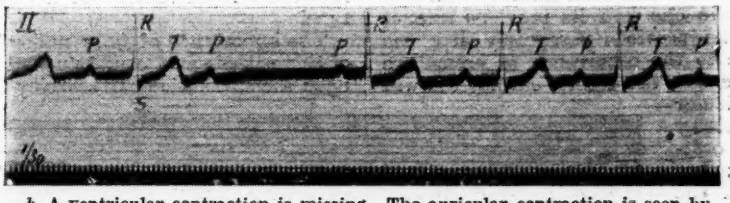
The Analysis of Cardiac Irregularities.

IN the preceding articles I have dealt almost exclusively with illustrations of the value of electro-cardiography in the examination of hearts which beat regularly. In the present article I propose to describe and illustrate the more important forms of heart irregularity as they are portrayed by this method. Formerly it was customary to class all types of cardiac irregularity together, or at the most to distinguish between "intermittence" and so-called "delirium cordis." To-day our knowledge of arrhythmia of the heart forms one of the most complete chapters of clinical medicine. We are largely indebted to electro-cardiography for this knowledge. We now know that there are a number of different causes of disorderly heart action, and that they have widely different effects upon the circulation and upon the life-histories of the patients in whom they occur. We have learnt that the response of a heart, in which the chamber contractions are disorderly, to therapeutic agents is largely controlled by the nature of the disorder which is present. It is no longer sufficient to speak of this or that heart action as irregular; we must know the form of the irregularity, the part which each heart chamber plays in it, and its site of origin. This information is supplied by the galvanometer.

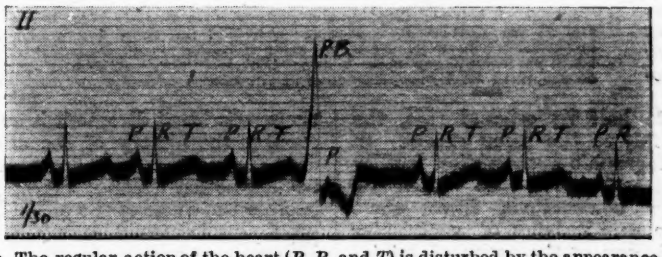
Figs. 15*a*, *b*, and *c*. Three electro-cardiograms, showing the manners in which intermittence of the pulse may arise.



a. A whole heart-beat, including auricular and ventricular contraction, has fallen out.



b. A ventricular contraction is missing. The auricular contraction is seen by itself and at approximately equal distances from adjacent auricular contractions. Thus the auricular rhythm is undisturbed, while, for one cycle, the ventricle fails to respond. The condition is one of partial heart-block.



c. The regular action of the heart (*P*, *R*, and *T*) is disturbed by the appearance of a premature ventricular contraction (*P.B.*). This contraction is represented by an electric curve of anomalous form, because it has started in the right and basal portions of the ventricular muscle, and not on both sides simultaneously, as is usual. The auricular rhythm is again undisturbed; there is no response to the auricular contraction, which falls with the premature beat, but response to succeeding auricular contractions is regular. The premature beat was weak and failed to reach the pulse.

So-called "Intermittence" of the Pulse.

In many patients in whom the radial pulse and heart contract with perfect uniformity for long periods an occasional and isolated disturbance is noticed. The pulse is said to "intermit"—it loses one of the serial beats at intervals. The pause, which interrupts the otherwise perfectly regular pulse, is due to one of three causes:

1. *Whole Heart Silences.*—The pause may be due to a rare phenomenon, the complete loss of a whole heart-beat. During the pause the recorded line runs straight (Fig. 15*a*); no trace of either auricular or ventricular contraction is visible during it. On account of the rarity of the condition, its prognostic significance is at present imperfectly understood. The irregularity is usually vagal in origin.

2. *Dropped Beats.*—The pause contains no ventricular contraction, but an auricular summit *P* is seen at the expected point (Fig. 15*b*). When I say expected point, I mean that the auricular contraction falls at an equal distance between the preceding and succeeding contractions of the same chamber. The auricular rhythm is undisturbed, but a single response of the ventricle is lost.

This form of heart irregularity is not infrequent, and is especially common in patients who are under the influence of drugs of the digitalis series. It also occurs in acute and chronic rheumatic infections, in pneumonia and other conditions. It is due to a deficiency in the functions of the auriculo-ventricular bundle (heart-block), and is in reality an exaggeration of a condition previously described—namely, prolongation of the *P–R* interval. Its significance is the same, and has been discussed in a previous article. It is a grave sign.

3. *Premature and Weak Contractions.*—The pause may be occupied by a premature and abnormal contraction of the ventricle.† The premature beat is recognized by its strange shape, and by its falling at a point earlier than might be anticipated. It prevents the response of the ventricle to the succeeding auricular contraction; and this auricular contraction usually falls with the abnormal ventricular beat (Fig. 15*c*). The auricular rhythm is undisturbed, and, after the pause, the ventricle again responds to the succeeding beats of the auricle.

It is often possible, from the form of abnormal beat, to identify the region of the ventricle from which it arises. It may be stated that it comes from the right or basal portions of the ventricle, or from the left or apical portions. The illustration (Fig. 15*c*) is of a beat which has arisen near the right and basal portion of the ventricle.‡

This form of irregularity is extremely common; most adult men of sedentary occupation exhibit it from time to time. It is a disturbance of little consequence. The importance of recognizing it lies chiefly in its possible confusion with the other forms of irregularity.

Coupled and Tripled Beats.

A pulse or apex beat is not infrequently felt, in which the beats appear in groups of two or three. The beats at the apex may be similarly grouped. Such pulses are due to one of two chief causes. If, while the auricle beats regularly, a response of the ventricle to each third auricular contraction is missed, the remaining ventricular contractions necessarily occur in couples. If each fourth beat of the ventricle is missed, the remaining beats occur in groups of three (Fig. 17). Coupled or tripled beating of this kind is the result of heart-block.

Coupling or tripling of beats may be due also to frequent intermittences, resulting from premature contractions. If a premature contraction of the ventricle replaces alternate heart cycles, then a normal beat and a premature beat fall closely together (Fig. 16) and form a couple, separated from

* Work in the tenure of a Beit Memorial Fellowship.

† It may also be occupied by other forms of premature beat, which for the sake of simplicity I shall not consider.

‡ This conclusion is based upon experimental observations.

the next couple by a pause of unusual length. Both normal and premature beats may often be felt and heard at the apex beat, but the premature (or second) beat of the couple may fail to affect the pulse. If the premature beat appears at the wrist the pulse beats are coupled. If it does not, the pulse-rate is half that found at the apex beat. Tripling is produced at the apex when a premature beat replaces each third normal cycle.

The significance of coupled or tripled beating depends upon its causation. If due to heart-block, it is of far more consequence than if due to premature contractions. The difference between the two forms from this point of view has already been discussed.

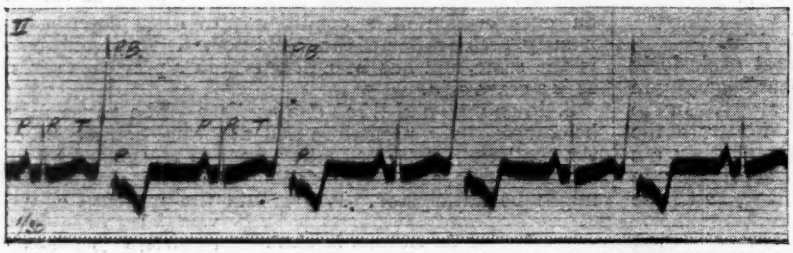


Fig. 16.—Electro-cardiogram showing one form of coupling of the heart beats. Each normal cycle (*P*, *R*, and *T*) is closely followed by a premature ventricular contraction (*P*, *B*), which coincides with an auricular beat. These abnormal beats have arisen in the right and basal portions of the ventricle (see Fig. 15 *c*). The premature beats failed to reach the pulse, the rate of which was 51 per minute, The auricular or true heart rate was 101.

Halved Pulse-rate.

If in a patient, whose heart has been beating regularly, the pulse suddenly falls to one half its previous rate, it will be evident from the previous paragraph that the disturbance may be due to the occurrence of premature beats. If such be the cause, the electro-cardiogram will show the weak ventricular contractions. Often they may be discovered by ordinary clinical methods; but not infrequently, when the beats are exceptionally weak, and especially if the heart sounds are indistinct, they cannot be discovered in this manner. *However weak they may be they are always fully displayed by the galvanometer* (Fig. 16).

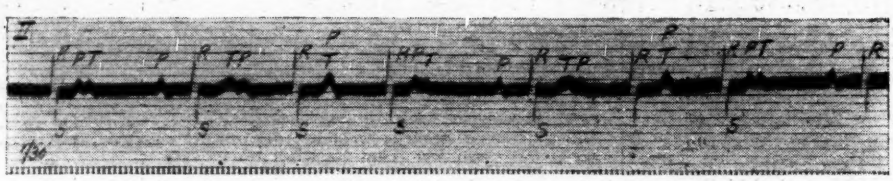


Fig. 17.—Electro-cardiogram showing one form of triple heart beats. All the ventricular beats (*R*, *S*, and *T*) are preceded by auricular beats (*P*); but there is a failure of the response to each fourth auricular contraction. Note that after each long pause, the *P-R* interval is short, and as the group of beats proceeds it gradually widens—that is to say, a gradually increasing difficulty in conduction occurs, until finally response fails at the end of each group.

If the pulse-rate falls to half its original rate, the ventricular-rate may also fall to the same extent. In such a case the electro-cardiographic examination usually discovers two auricular contractions for each ventricular beat. Alternate auricular contractions have alone awakened ventricular response. Halving of ventricular rate, produced in this way, is one of the types of bradycardia, two of which were described in a previous article.

Gross Irregularity of the Heart: Auricular Fibrillation.

There are many forms of heart irregularity other than those which I have so far described. It would occupy too great a space were I to attempt their description. I shall consequently confine myself to one further illustration.

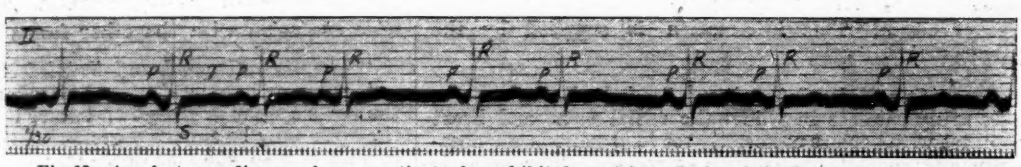


Fig. 18.—An electro-cardiogram from a patient who exhibited gross irregularity of the heart. It shows that the irregularity is of sinus origin—that is to say, the heart beats are *generated* irregularly. All the heart chambers are affected in the same manner; each ventricular beat (*R*, *T*) is preceded by an auricular summit (*P*).

In most patients who suffer from heart disease and in whom the pulse is irregular the pulse irregularity is of a gross type. In the examples of disordered action previously described the derangement is of relatively simple form, consisting of "intermittences," halving of rate, or groupings of beats which are repeated from minute to minute. But the heart's action may be so disorderly that the confusion is extreme, so that few of its cycles appear to be of the same length and the beats or pulsations are of varying strength. Such an irregularity may be due on rare occasions to irregular generation of the impulses at the normal site, and the whole heart is then involved in the same irregularity (Fig. 18). Such an irregularity is termed a sinus arrhythmia,* and is of no serious prognostic moment. It may also be due to a complex admixture of premature and normal beats, but this form of disordered action is also rare. In 60 to 70 per cent. of all failing hearts irregularity is the result of a remarkable phenomenon which I described in this JOURNAL three years ago, namely, fibrillation of the auricles. Auricular fibrillation is a condition in which the co-ordinate contraction of the upper chambers is entirely lost; the muscle fibres no longer move together and perform the act of systole, but the walls of the chambers stand in a position of diastole, while fine flickering movements are visible all over their surfaces.†‡ The muscle mass seems to be subdivided into a number of small foci, each of which is contracting independently of the surrounding tissue. The active emptying of the auricles has ceased; they remain always full of blood. That is the mechanical effect of fibrillation; but there is a further and far more important effect. As soon as the co-ordinate contraction is replaced by fibrillation, so soon are the slow and rhythmic impulses which normally stimulate the ventricle lost, and they are replaced by a large number of haphazard impulses which issue from the auricular turmoil. The result is a rapid ventricular action of an extremely gross type.

The importance of fully understanding the mechanism of this pathological condition and appreciating its effects upon the circulation can scarcely be over-emphasized. In rheumatic heart disease it is one, if not the most serious, event in the history of the affection. As a general rule, once it appears it remains until death.‡ The rapid ventricular action which it engenders is immediately felt, and is often the cause of the initial breakdown; for a weakened heart muscle cannot maintain an unduly accelerated rate. Moreover, as a large number of the beats are weak and fail to reach the pulse, a great deal of the excessive work is wasted. The rapid and turbulent action is speedily followed by venous engorgement, and signs of pulmonary and abdominal stasis may soon appear as an immediate result.§ Thus the irregularity is the *cause* of serious circulatory embarrassment, and is not, as was formerly

* Sinus irregularities also include the respiratory irregularities of children, where there is a waxing and waning of rate with each act of breathing.

† Our knowledge of these appearances has resulted from experiment.

‡ In a limited percentage of the cases it occurs in paroxysms, giving rise to a type of paroxysmal tachycardia, which is characterized by periods of gross pulse irregularity.

§ The diastolic position of the auricles and consequent stagnation of blood in them might be supposed to predispose to infarction of the lungs; but so far I have been unable to find clear evidence of it. It may be that clots formed in the auricles while fibrillation is present are less readily detached.

taught, the *result* of such embarrassment. That such is the case is known, for the irregularity appears first; it serves as a warning of future events. Moreover, the circulatory failure is not always immediate; when the heart muscle is stronger it may not show signs of failure until months or years after the onset of the disturbance.

The recognition of the disorder when it is seen—and it is frequently seen by all who practise medicine—is of consequence from several points of view. When, as is so often the case, it develops in a case of mitral stenosis, a murmur limited to presystole is no longer audible, for this murmur is dependent upon co-ordinate contraction of the auricle. So it often happens that patients who have exhibited either no diastolic murmur, or only an early diastolic murmur at the apex during life,* are found to have mitral constriction after death.

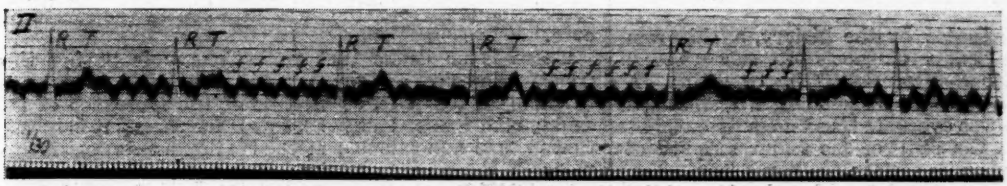


Fig. 19.—An electro-cardiogram taken from a case of mitral stenosis; the heart contracted in a grossly irregular fashion. The curve shows that the irregularity was due to auricular fibrillation. The ventricular beats are of the usual form (*R* and *T*); the impulses have consequently come down from a point above the ventricle. The whole curve shows continuous oscillations of large amplitude (the conspicuousness of the oscillations is an indication of auricular hypertrophy), oscillations which, as I have shown, result from the fibrillation of the auricles. There are no *P* summits, representing co-ordinate auricular contraction.

But its recognition is of chief importance on account of the indications it gives for treatment. These are the cases in which digitalis may be looked to to give its conspicuous reaction. Administered in suitable doses, a great reduction of heart rate and a rapid improvement of the circulatory conditions may be anticipated in a large number of the cases, especially in young subjects. The fibrillation is not abolished, but a check is placed, and may be maintained, upon the number of impulses which reach and stimulate the ventricle. In such cases digitalis brings one of the most successful changes which modern therapeutics can record. Not only does it bring the moribund back to life, but it staves off disaster in those in whom the approach of failure is threatened.

While the disorder may be recognized in a large percentage of cases by ordinary clinical means, its certain and invariable demonstration can only be accomplished electro-cardiographically. The type of curve which it yields is illustrated by the last figure (Fig. 19). The curve was taken from a patient already under the action of digitalis; the ventricular action (*R*, *T*) is consequently relatively slow (the actual rate is 70 per minute; it had been 150). The shape of the ventricular curves (*R*, *T*) indicates the usual spread of the ventricular contraction, the impulses have come from the auricle. True *P* summits are absent, for the auricles are no longer contracting co-ordinately. The *P* summits are replaced by a series of irregular oscillations (*f*, *f*,) which may be traced continuously throughout the whole curve. These little oscillations are the result of the perpetual and tumultuous activity in the walls of the auricles. They are the result of "fibrillation" in these chambers.

SUMMARY.

To sum up, galvanometric examination of the heart is important from many points of view. It may give indications of enlargement of the walls of one or other cardiac chamber; it may accurately locate small lesions in the musculature. It informs us when the heart beat starts at the normal impulse centre or away from it; in the last named condition it tells us that the rhythm is no longer under the normal nervous control—a fact which is of fundamental importance in the management of our case; it tells us within certain limits where the new beats have their origin. It gives us a separate record of contraction in auricle and in ventricle, and accurately defines the time relation of contraction in one chamber and the other; thereby it frequently elucidates physical signs which otherwise remain obscure. It provides us with a perfect means of ascertaining the functional efficiency of the auriculo-ventricular bundle, the sole conducting tract upon which the ventricle depends for the reception of impulses which start its contractions. It allows us to differentiate between separate forms of slow and rapid heart action, which are of totally different significance. It provides us with an analysis of every form of cardiac irregularity, an analysis which is unrivalled in its precision by any other method. While the information derived from it relates essentially to the condition of the muscle, the method is often helpful in the diagnosis of lesions of the valves. It brings us into nearer contact with the functions of the heart muscle than does any other clinical method; it is a precise means of studying the heart as a living and moving organ.

The information obtained by electro-cardiography is not, as commonly thought, of purely scientific interest in the analysis of disordered heart action. It has a great and growing value in the practical management of patients. There are few heart cases in which our knowledge is not added to by its employment, and in a steadily increasing percentage facts which are essential if sound prognosis and treatment are to be attempted are elicited. The time is at hand, if it has not already come, when an examination of the heart is incomplete if this new method is neglected.

* Such patients are not infrequently mistaken for aortic cases.

SUBPERIOSTEAL HAEMATOMA.

BY

PERCIVAL P. COLE, M.B., CH.B., F.R.C.S.,

SURGEON, WEST HAM AND EASTERN GENERAL HOSPITAL; SURGICAL REGISTRAR, THE CANCER HOSPITAL; HONORARY DEMONSTRATOR OF ANATOMY, MIDDLESEX HOSPITAL.

THE two following cases are recorded because they seem to throw some light on the pathology of cases in which formation of new bone is associated with injury to the periosteum.

CASE I.

A. P., male, aged 16, came under my care at the West Ham Hospital in January, 1911. He complained of pain in the knee and front of the thigh, which began after a fall on to a rail in November, 1910. The pain was constant, of a dull aching character; it was made worse by exercise, and was relieved by lying down. On the front of the thigh, just below its middle, could be felt a hard irregular swelling. This was fixed to the bone, and was less evident when the knee was forcibly and voluntarily extended. The movements of the knee-joint were not interfered with, and the skin over the swelling was normal. An *x*-ray photograph which was taken showed a deposit of new bone, lamellar in character, and lying for the most part parallel to the shaft of the femur.

An exploratory operation was performed, and an irregular plaque-like mass of rough cancellous bone was found. This was deep to the periosteum and in close contact with the shaft of the femur. The wound was closed, and the limb kept at rest on a splint for three weeks. At the end of that time the mass was considerably smaller, and all pain had ceased. Seven weeks after the operation the mass was scarcely palpable, and a skiagram taken showed nothing but a slight smooth swelling.

CASE II.

L. D., female, aged 23, was admitted to the Cancer Hospital under the care of Mr. Jocelyn Swan, to whom I am indebted for permission to publish this case. Her history was as follows:

Seven weeks ago she fell off a counter and severely bruised her left thigh. She was unable to walk for an hour or two, but afterwards resumed work. She began to feel pain directly after the accident, and this drew her attention to a swelling in the thigh. A fortnight after she attended another hospital where an *x*-ray photograph was taken, a diagnosis of sarcoma made, and she was advised to submit to amputation. She was able to walk, but had severe aching pain after prolonged standing. On admission she stated that no increase in the size of the swelling

had been noticed. The middle third of the left thigh was enlarged by a fusiform swelling which was connected with the bone. It measured 6 in. long, and formed a very obvious prominence on the outer and front aspects of the limb. Behind, and more particularly internally, the swelling became ill-defined. There was a sharp demarcation between swelling and normal shaft below, but above the thickness of the soft parts made accurate palpation impossible. The skin over the swelling exhibited some prominent veins. The swelling was painless on palpation, hard, elastic, and of even consistency. The surface was smooth and no pulsation could be detected. No glands could be felt in the groin. There was no history of syphilis or tubercle.

On the evidence afforded by the history, a skiagram and the physical signs, a diagnosis of subperiosteal haematoma was made and confirmed by operation. A large quantity—over a pint—of blood-stained fluid, mixed with gelatinous clots, was evacuated, and a cavity exposed through which passed the shaft of the femur stripped of periosteum and eroded on its surface.

These two cases illustrate a late and early stage of the same lesion—subperiosteal haematoma. In the first case the haematoma was small, and the boy was not seen until a free deposition of bone had taken place. In the second case the haematoma was of large size, and the girl was operated on at a time when bone had only been deposited at the margins of the swelling where periosteum again joined the shaft. Similar cases have been recorded by Bowlby and by Makins and Godlee under the title "Myositis Ossificans Traumatica." Godlee concluded that the essential conditions were, first, an injury to the periosteum, and secondly, an effusion of blood. He deprecated, on these grounds, the use of the term "myositis," and regarded the condition as analogous to the cephalhaematomata of infants.

The evidence afforded by the cases detailed above strongly supports this view, and suggests that operative measures are indicated if the lesion be detected soon after the injury.

REFERENCE.

Proceedings of the Royal Society of Medicine, Surgical Section, April, 1911.

Memoranda:

MEDICAL, SURGICAL, OBSTETRICAL.

X RAYS IN SCIATICA.

HOLDING the view that, however tempted one might feel to draw conclusions on the efficacy of a new method of treatment on a small number of cases, one should resist the temptation; yet, while thus waiting for further clinical material to establish a claim, when abstracts from the Continental medical press appear claiming priority in a new method of successful treatment of inveterate disease, one may be justified in speaking, as I recently had occasion to do.[1]

In the Epitome of Current Medical Literature of the BRITISH MEDICAL JOURNAL of October 7th, 1911, an abstract on the above subject opens as follows:

"Cure" is not too positive or definite a term to describe the results of *x*-ray treatment in sciatica, according to Babinski, Charpentier, and Delherm, who report four observations (*Arch. d'électr. méd.*, June 10th, 1911).

From the interesting details which follow it is clear that the four cases of sciatica were all of the most inveterate type, which had resisted every other kind of treatment, including such as those recommended by Dr. W. B. Watson in his instructive article on the diagnosis and treatment of sciatica, which appeared in the BRITISH MEDICAL JOURNAL of April 27th, 1912. The underlying pathological condition in these cases might be safely assumed to be one of varying degrees of dense neoplastic perineuritic adhesions, along particular parts of the tract of the sciatic nerve, the sequelae of previous subacute attacks. The indication for treatment is to set free the adhesions, by the induction of fibrolysis and resolution, to effect which the time-honoured resolvents and counter-irritants, including bee-stings, have had their day.

Four such cases came under my care in the same year as that of the authors' cases reported (1907), two being hospital patients and two in my private practice. One of the latter was referred to me somewhat reluctantly by a general practitioner of Cricklewood, as he admitted, from his superficial knowledge, he had many qualms regarding possible unforeseen evil effects of the *x* rays. Later I was the gratified recipient of a highly congratulatory letter from him. None of these cases have had any recurrence up to date. The tendo Achillis reflex was not elicited by me, though the importance of making this test must be appreciated when, as is shown in the cases of the authors cited, restoration of this function was attained in the course of cure.

There is no doubt that radio-therapy is paying the penalty of neglect and the careless manipulation of practitioners in the past, as well as of the ignorance of its limits, both for good and evil, by earlier users. It is hoped that in time this valuable method will find its legitimate place in the armamentarium of the physician, for such intractable chronic diseases; more so, as laying up in bed, splinting the limb, and the well-known irksome applications, can be entirely dispensed with.

London, W. H. D. MCCULLOCH.

[1] BRITISH MEDICAL JOURNAL, February 24th, 1912.

MINERS' NYSTAGMUS.

IN the issue of the JOURNAL for May 18th, 1912, p. 1127, Dr. Edridge-Green suggests, as the cause of miners' nystagmus, "a necessity for movement of the eye in order to be able to see with the fovea."

In April, 1911, in a thesis for the degree of M.D. at the University of Edinburgh, I put forward a similar suggestion as an explanation of the way in which the darkness of the mine plays its part in the production of coal-miners' nystagmus. My thesis was an endeavour to bring into line the existing, but previously controversial, theories as to the etiology of this interesting malady, and also to break new ground with regard to a determining factor. Briefly summarized, my conclusions were as follows.

In order to maintain central fixation in all positions of the head—that is to say, in order to keep the retinal image of an object upon the fovea centralis—there must be absolutely perfect co-ordination between the six extrinsic ocular muscles. The actions of these muscles are so complicated and, as a general rule, their co-ordination is so perfect, that it is justifiable to assume the presence of a higher cerebral centre—a fixation centre—whose function it is to control automatically the delicate and highly complex impulses sent out to the various muscles by the oculomotor nuclei in order to maintain central fixation.

Miners' nystagmus is a perversion of the function of central fixation due to the conditions under which the coal miner works, but determined by a personal factor which, in the majority of instances, is an error of refraction. The three factors most concerned in producing the disturbance of central fixation evidenced in miners' nystagmus are:

1. Defective illumination in the pits.
2. Insufficient room in which to work, necessitating a cramped or stooping position.
3. Refractive errors on the part of the men.

How these factors, and possibly some others, such as poisoning of the nerve centres by fire-damp, increased atmospheric pressure acting through the vestibular nerve, etc., could work together in causing a perversion of ocular stability was discussed at some length, but here I shall first refer to factor No. 1 (defective illumination), because this has a direct bearing upon Dr. Edridge-Green's recent communication. I wrote as follows:

It is generally recognized by physiologists that the fovea centralis is not so sensitive to a minimal stimulus of white light as the rest of the macula lutea. Consequently, in the blackness of the mines, the miner instinctively moves his eyes so as to bring the feebly illuminated image of the object he wishes to see upon some part of the macula other than the fovea centralis. Now this movement, infinitesimal though it may be, is in itself a departure from central fixation which is very disconcerting to a centre that has been educated to keep the visual image fixed always upon the fovea centralis. In other words, the balance of the fixation centre is disturbed.

With regard to factor No. 2 (insufficient room in which to work)—in nearly all pits the miner spends most of his working day in a more or less stooping position, because the thickness of the seam does not permit him to stand

upright. Now, when a man in a stooping position desires to look straight in front he must really place his eyes in a position of elevation (relative to the orbital axes). The maintenance of the eyes in this position of unusual strain produces fatigue of some muscles and not of others, and this again has the effect of throwing the delicate mechanism of central fixation out of balance.

With regard to No. 3, it is well known that, of the miners working under almost identical conditions in a certain seam, only a certain percentage develop nystagmus. This suggests that there is a personal factor to be reckoned with that determines the onset of the disease, and in the investigation of this personal element much assistance can be obtained from a consideration of congenital nystagmus. Briefly, then, children are not born with the function of steady ocular fixation already developed; they have to acquire it by education of a special cerebral centre. If an infant comes into the world with very defective vision (caused, for instance, by corneal or lenticular opacities, or albinism) he goes through life with more or less well-marked nystagmus, for the simple reason that the brain never receives a sufficiently clear visual impression to stimulate the perfect education of this centre. For the same reason, children born with very high refractive errors may also be the subjects of nystagmus; in fact, I have personally investigated seven cases of juvenile nystagmus in which the only apparent cause for the non-development of steady fixation was a high error of refraction. It was a consideration of these cases that induced me to pay particular attention to the refraction in all cases of miners' nystagmus, with the remarkable result that, out of 200 cases of miners' nystagmus examined during the last three years, *I found errors of refraction in upwards of 90 per cent.* Mere coincidence is not a convincing explanation of such a large percentage; nor the suggestion that the Durham miner may be particularly prone to refractive error (though I am at present investigating the latter point). To me it is very fair evidence that refractive error plays its part in perverting the function of ocular fixation in the adult, just as we have seen that it can interfere with the development of this function in the child. In the case of the miner, working under, at best, conditions very disconcerting to his visual functions, the refractive error is the determining factor, the last straw, so to speak, of the burden which the fixation centre has to bear.

ALFRED C. NORMAN.

Durham County and Sunderland Eye Infirmary, Sunderland.

ETIOLOGY OF BERI-BERI.

THE following may be of interest, not that it elucidates the origin of beri-beri, but tends to prove that food is or may be only a predisposing cause in this disease.

The native crew of a ship consisted of Calcutta Indians, twenty-nine deck crew and fifty-two engine-room. Both crews used the same barrel of flour, the same sack of rice, the same meat, vegetables, and water supply, and cooked in the same galley. No complaints were made as to the quality of the stores supplied.

The deck crew were not under medical treatment for the last two months of the voyage. During that time there were six definite cases of beri-beri among the engine-room crew, having the typical signs and symptoms, very rapid pulse, œdema of the legs, loss of knee-jerks, and great muscular weakness. The only difference between the two crews was that the deck crew lived in the upper peak of the forecastle, which was dry; the engine-room crew lived in the lower peak, which was often unavoidably wet. When I left the ship in January there were nine more suspected cases among the engine-room crew, the deck crew remaining untouched.

These cases seem to point to dampness playing a large, if not the largest, part in the causation of this neuritis or disease.

Codsall. H. G. BROWNING, M.B.Birm.

AT the elections to the Belgian Chamber of Representatives on June 2nd, thirteen members of the medical profession were returned. These are Drs. Capelle (Dinant), Heynen (Neufchateau), Terwagne (Antwerp), D'Hauwer (Audenaerde), Peersons (Saint-Nicolas), Peel (Courtrai), V. Delporte (Mons), Delbeeck (Roulers), Borginon (Brussels), Branquard (Soignies), Vandeperre (Antwerp), Lamborelle (Malines), and Van Sande (Termonde).

Reports of Societies.

THE ROYAL SOCIETY.

Thursday, June 27th, 1912.

Sir ARCHIBALD GEIKIE, K.C.B., President, in the Chair

The Intensity of Natural Selection in Man.

PROFESSOR KARL PEARSON, F.R.S., said that the following statement had recently received much currency: A high infant death-rate in a given community implies in general a high death-rate in the next four years of life, while low death-rates at both age-periods are similarly associated. The evidence in support of the statement consisted solely in showing that a bad environment raised both infant and child death-rates. But the statement was not true, even when no correction was made for differential environment, in what was, perhaps, the most important data on the subject, the Registrar-General's ten-year life tables for England and Wales. In three out of four of these tables a rising infant death-rate was associated with a falling child death-rate, and when correction was made for environment there was a substantial *negative* correlation between infant and child death-rates. The point was one of very great importance, because the question of a selective death-rate is the question of whether natural selection—Darwinism—applies to man. The inquiry did not attempt to determine how far the rising infant death-rate was really the cause of the falling child death-rate; its aim was to show that there was no such general rule as that stated. If that rule were a demonstrable truth then it might confidently be asserted that Darwinism did not apply to civilized man. As a matter of fact, other methods of inquiry indicated that at least 60 to 70 cent. of the deaths in civilized human communities were selective—that is, due to the elimination of those with inferior constitutional powers of resistance.

On Negative After-images and Successive Contrast with Pure Spectral Colours.

MR. A. W. PORTER, F.R.S., and Dr. F. W. EDRIDGE-GREEN read a paper in which an investigation on this subject was reported. A definite portion of the retina was fatigued by steadily gazing at an isolated region included between two definite wave lengths in the Edridge-Green colour perception spectrometer. After the fatiguing light had been viewed for a period of about twenty seconds the eye was turned to a screen on which a spectrum was situated, so that the after-image formed a band running right across the spectrum on the screen and occupying its centre. Experiments were also made with the spectrum replaced by monochromatic bands and on the appearance of the sodium flame after fatigue to various colours. The first point which was evident was the very great importance of the intensity of the light which was used, especially in relation to the reacting light.

1. Very little effect was produced, except when the intensity of the reacting light was the same or less than that of the fatiguing light.
2. The effect was chiefly noticed on the less luminous portions of the spectrum; for instance, after fatigue for yellow there was very little effect in the yellow, but considerable effect in the violet.
3. The after-image is not surrounded by the primary colour.
4. The effect of fatiguing the eye with a monochromatic region produces a uniform grey band across this region, when both fatiguing and reacting lights are of the same intensity.
5. The after-image does not change colour on fading.
6. Violet was the most affected after fatigue for red.
7. An after-image is seen in the absence of all external light.
8. Except after fatigue by a very bright light—as, for instance, direct arc through coloured glass—yellow does not change to green after fatigue to red, or to red after fatigue to green. The same is found with the sodium flame, though the after-image was strongly marked on each side of it.
9. The after-image, even in the absence of all external light, is always darker than the surrounding visual field.
10. The complementary to the exciting light is never strengthened in the spectrum on the screen by the after-image.

These facts could not be explained on either the Hering or Young-Helmholtz theories. The explanation on the Edridge-Green theory of colour vision was the same as that given for other facts of simultaneous contrast.

Colour Blindness and the Trichromatic Theory.

Sir W. DE W. ABNEY, F.R.S., described a simple test capable of giving a quantitative measure of the degree of colour blindness which a colour-blind person possessed. By matching a single colour of the spectrum with the colour of the light coming from such a solution as of potassium chromate the degree of colour blindness could be immediately determined. He described also a method by which any displacement of the green or red sensation curves could be measured with great accuracy.

EDINBURGH MEDICO-CHIRURGICAL SOCIETY.

Wednesday, July 3rd, 1912.

Dr. JAMES RITCHIE in the Chair.

Food Requirements of Children.

DR. CHALMERS WATSON, in a paper on this subject, said that little or no information from clinicians was available as to the right standard for children. He had analysed the daily dietaries of eight apparently healthy children in medical families with the following average results. Protein 71 grams, fat 67 grams, carbohydrate 198 grams, giving a total of 1,725 calories. The ages of the children were from 4 to 6 years. This analysis had yielded a higher protein figure than in Atwater's standard for a child of similar age, which, however, was somewhat low, the optimum daily protein for a child of this age being from 60 to 65 grams. The protein was the important element in the diet of a child, and, with regard to its amount, the diathesis of the child had to be considered. In children of gouty diathesis the protein must be kept at or below the average; while in tuberculous children the average amount should be considerably exceeded, and this excess maintained during the whole growing period. That an extra protein diet could modify the functional activity of tissues, and especially of the thyroid gland, was becoming more and more widely accepted. Another important point was the provision of pure unadulterated food. The amount of adulteration of foods was vastly greater than supposed. The bleaching of flour by nitrous oxide fumes, which was illegal in America, was widespread in this country, and it was very desirable here that such flour should be labelled as "bleached." Further, a requisite amount of "hard" food demanding mastication should be provided. He then detailed a variety of one-course meals provided for Edinburgh school children, with data of their composition and cost. Dr. GOODALL said he was a believer in red meat for children, and especially for pining children—the withholding of such food until the age of 6 to 8 years was a bogey. Dr. DINGWALL FORDYCE said that while a tuberculous child could take more milk and more fat than an ordinary child, yet such cases did better on a relatively rich meat diet than on any other. Dr. PORTER emphasized the importance of idiosyncrasy in the diet of children. At the same time he did not regard red meat as a suitable food for young children. The idea of its special virtue in laying on flesh was now exploded, but also it was incompletely absorbed and lent itself to intestinal putrefaction. Dr. PIRIE showed that the meals for school children described by Dr. Watson did not exercise the process of mastication; and alluded to excellent results in nutrition and development of children produced by a purely vegetarian diet. Dr. FIFE described a farinaceous food ("poy") used by the Sandwich Islanders, who were a race of splendid and powerful physique. In tug-of-war contests he had seen them easily defeat teams of Europeans (British and Germans). The PRESIDENT alluded to the extravagance of the poor in buying the more costly parts of meat, and to the dangers of tapeworm with a raw meat diet. Children in the stage of active growth demanded a relatively high protein diet. Milk protein was better than meat. Dr. CHALMERS WATSON replied.

Treatment of Cardiac Irregularities.

Dr. W. T. RITCHIE, in a paper on vagus stimulation and paresis in the treatment of cardiac irregularities, pointed out that the action of digitalis was partly a direct one on the heart muscle, and partly an indirect one by stimulating the vagus. Digitalis and strophanthus slowed the heart, strengthened the ventricular beats, depressed the conductivity of the *a–v* bundle, and in small doses depressed the excitability of the heart muscle in a manner comparable to vagus stimulation. All measures that stimulated the vagus ought to prove useful in the treatment of tachycardia, but in many instances they failed. In the treatment of cardiac failure by digitalis the disappearance of extra-systoles was usually coincident with the lessening of dyspnoea, cyanosis, and oedema, and might probably be ascribed to other factors than depression of excitability by vagus stimulation. In auricular fibrillation all forms of vagus stimulation might act beneficially in virtue of their action on the *a–v* bundle. Atropin was useful in partial heart-block. In alternation digitalis might be of service in slowing and strengthening the heart, in abolishing the alternation, and in relieving the patient.

ROYAL SOCIETY OF MEDICINE.

Monday, July 8th, 1912.

Sir HENRY MORRIS, Bart., President, in the Chair.

RESUMED DEBATE ON SYPHILIS.

THE debate on syphilis was reopened by Dr. DEAN, who discussed the question of syphilis as a possible cause of idiocy. Only a small proportion of idiots, he thought, showed the classical signs of congenital syphilis. Still, the view had been put forward by several writers that congenital syphilis was an important cause of idiocy, but it was based on cases in which, though the usual signs of the disease were absent from the child, there was a definite history of syphilis in the parent. A positive Wassermann reaction had been obtained in cases of framboesia, trypanosomiasis, malaria, and certain cases of leprosy; but they were very uncommon diseases here, so that a positive Wassermann reaction practically meant syphilis. In some cases this reaction, being positive, was the only sign of the disease being present. Among 330 patients in an idiot institution on the Continent 15 per cent. showed a positive Wassermann reaction. Among them the later the age at which the examination was made, the less frequently was the Wassermann test positive. He tried to detect symptoms common to all, but only a few cases showed evidence of a gross lesion of the central nervous system. Indeed, such lesions would not be consistent with the continuance of life. General paralysis and tabes seemed to occur chiefly in those in whom the syphilis had been only mild or unnoticed by the patient. Of 204 idiots examined in America by Attwell, 30, or 14.7 per cent., gave a positive Wassermann reaction. Congenital syphilis seemed to be a very important cause of mental deficiency. It would be well if every member of families which included one or more idiots could be examined by the Wassermann test. He recognized three groups: (1) Infants born with marked evidences of syphilis, the brain and other organs showing marked change. As a rule these die within a short time of birth. (2) Children who seemed to be healthy at birth but developed mental defect at or about puberty. They include the juvenile general paralytics. (3) Cases of imbecility and idiocy in whom the positive Wassermann reaction is the sole evidence of the syphilitic origin of the disease. He advocated the institution of the test in the case of all patients at lying-in hospitals.

Dr. J. H. DAUBER reminded the meeting that some fifteen years ago the British Medical Association had urged upon Government the necessity of an inquiry into the prevalence of venereal disease and the best means of checking it, but the Government declined to act. The Association should repeat its suggestion, the present time being specially opportune. The influence of the profession was probably never greater than at present, and recent discoveries in connexion with syphilis had attracted public attention. The medical profession would do justice neither to itself nor to the public if it concerned itself solely with the curative treatment of syphilis. As in the case of malaria, yellow fever, and other like diseases, it must initiate preventive treatment. It was its duty to speak out boldly and insist on the public recognizing that syphilis was a disease more to be dreaded than any other disease except cancer, and even more to be, perhaps, than cancer, since it was liable to be transmitted direct from parent to offspring; on the other hand, it was unlike cancer a preventable disease. Legislature generally moved in response to public opinion, and it was the duty of the profession to help to form that opinion. Leprosy

had been stamped out in the Middle Ages, and syphilis could be stamped out likewise, but not by the unaided efforts of the medical profession. The State should be induced to assume some control over patients suffering from syphilis; it had already done so in regard to tuberculous persons, but the law still left syphilitics free to disseminate their disease as much as they pleased. In Germany marriage within ten years of acquiring syphilis was illegal, and a law making it a criminal offence for a syphilitic man or woman to infect a healthy person would come into force within twelve months; but in Great Britain there was entire absence of legislation, so the power of medical men to check the disease was exceedingly limited. Most venereal cases seen by him at the Hospital for Women, Soho Square, were in innocent women infected by their husbands. Such women should be protected, a risk of syphilis not being part of the bargain of matrimony. Syphilis might be banished altogether if the country were once convinced that it was an unnecessary scourge. The people who chose to regard syphilis as a heaven-imposed penalty for vice must be induced to look at the matter in a practical, scientific manner. The first step should be to demand the inclusion of syphilis in the Infectious Disease Notification Act. Why should it receive preferential treatment? The exact procedure after notification was a matter for future consideration, but it might, perhaps, be somewhat as follows: The medical officer of health or other public authority to whom the notification was made would send a notice to the patient as to the steps he or she must take to avoid infecting others and to get rid of the disease themselves, and they would be told that if the prescribed directions were not carried out penalties would be inflicted. In the case of married persons it might be necessary to inform the infected partner that communication of the disease would be punishable, and possibly even to warn the uninfected partner. Obviously it was most important that child-bearing women should not be infected. Infected persons would have to produce cards showing that they were receiving treatment at the hands of medical men, and only in the case of obstinacy or blank refusal to carry out medical directions would a police summons be issued. Even then there need be no publicity. Few people resented genuine attempts to benefit them, and medical men could do much more by explanation and sympathy than could officialism by coercion. Major Harrison, R.A.M.C., who had had much experience in connexion with the Cantonment Code in India, was insistent on the fact that coercion should be kept as the last resort, and that the first steps in relation to prostitutes should be left in the hands of tactful medical officers rather than of the police. Under notification persuasion and argument would continue to be the chief weapons used by the medical profession, but coercion would be in the background. If there must be sexual immorality, at least let it be cleanly immorality, unaccompanied by a foul penalty, which fell as often on the innocent as on the guilty. In Sweden, a country ever in the van of human endeavour, syphilis was already notifiable, and steps in the same direction would be taken in New York also. Was it not time, therefore, that Great Britain also bestirred itself? No doubt there were difficulties in the way of notification, but they could not be regarded as insuperable difficulties, except by the kind of people who are always ready to go out of their way to look for lions in the path. In the main they were the same difficulties as those which preceded the introduction of the present Infectious Disease Notification Act, in regard to which it was declared that "people would never stand it" and other like statements. If the country were once convinced that the presence of syphilis was detrimental in the highest degree to the health and happiness of the people, it would submit to some discipline and control in connexion with that disease, as in so many others. If the medical profession contented itself with curative treatment and with discussing the dosage of salvarsan and other remedies, it would resemble Nero fiddling while Rome was burning.

Dr. J. B. CANDLER also urged that more attention should be given to the question of prevention on a large scale, rather than discussing the potency of salvarsan or the correct dosage of various mercurial creams. At the London County Asylum, Claybury, the serum and cerebro-spinal fluid of 109 cases of general paralysis were tested, and the serum gave Wassermann positive in 107, and from the cerebro-spinal fluid 109. In many of these cases the clinical diagnosis received *post-mortem* confirmation. In these investigations every care was taken, by means of controls, to guard against error. He and his colleagues had never relied on simple qualitative tests. He warned the profession against modifications of the test, some of which were useless, and pointed out the importance of having suitable extracts.

Dr. BARRETT spoke of the work which had been done in Victoria, Australia, in the effort to diminish the disease. In two series of 100 each relating to patients who had died from various diseases in Melbourne Hospital, one-third showed evidence of syphilis. The help of the ladies and the clergy was obtained, and the press were induced to boldly call venereal diseases by their true names, not "malignant contagious disease" or "the secret disease." He combated the view that prostitution was due to poverty, for Victoria was free from poverty, yet there was a good deal of prostitution; it seemed to be due to the desire to make a living without giving a proper return for it; it was a peculiar aberration of mind, and should be so regarded. In New South Wales a criminal suffering from venereal disease was not released until he was cured of it. He was not enthusiastic about the Contagious Diseases Act, and even if he were, the ladies in Melbourne would not have it, because they insisted on men being treated equally with women. In a Women's Hospital half the operative work was said to be due to gonorrhoea. If syphilis and gonorrhoea were eliminated, one would almost have, medically, a new world to deal with. If it should be the intention of the profession to go to the British Government for measures on the subject, he would be pleased to accompany the deputation and relate what had been done in Australia.

Dr. BERNSTEIN spoke of the success of salvarsan when given to syphilitic mothers, who had been producing a succession of stillbirths; with the result that healthy children were born subsequently to the treatment, and they gave a negative Wassermann reaction. He quoted statistics of cases suffering from various ailments, showing the beneficial effects of salvarsan when syphilis had been the responsible agent. Though many might not be in favour of a general notification of the disease, one would wish to notify many of the cases one saw, such as those in chefs and cooks at restaurants, whose opportunities of carrying the infection were appalling. One would like to see established large central laboratories to which the specimens of blood could be sent for diagnostic purposes. At present the diagnosis of syphilis on the Wassermann reaction had to be done, in great part, by private individuals. But it could not be done at a price which would allow of every man infected with syphilis having it done.

Dr. POWELL (Bombay) thought there must be a difference in the kind of syphilis in various countries. The disease in India seemed to deal with the arteries more than in Europe. In India by far the most common cause of death, apart from violence, was rupture of aneurysm of the aorta, the deaths from this being eight times as numerous as those from heart-valve disease. The disease described in the Old Testament as leprosy was much more like syphilis, as it was characterized by a primary sore in the form of an ulcer, and there was an eruption and, in many cases, a falling-out of hair. He did not agree with Mr. McDonagh that the State supervision of prostitutes had not diminished venereal disease. It was almost impossible for the law to get hold of male syphilitics, and the danger of syphilophobia must not be ignored. He had made *post-mortem* examinations on 11 cases of suicide which were directly due to syphilophobia, owing to too lurid a picture being drawn. When soamin was allowed to cool to 80° or 85° before injection it was followed by rigors, and he now used it at 108° to 110°. He asked any one who had a death from salvarsan to examine the heart *post mortem*. Of 7 who had died after atoxyl injections, 5 had striking haemorrhages below the endocardium of the left ventricle.

The PRESIDENT concluded the debate by a general review of the whole subject. On the historical side, Dr. Ashmead had stated that the Japanese race had been saturated with syphilis for 1,300 years, and it had been among the Chinese race since 1024 B.C., and these races, by

their long generational experience, had acquired strong resistance to the germ. It was quite probable that there was syphilis among the American Indians before the arrival there of Columbus, but there were very few deformities from it, because it had been so well treated. The llamas of Peru, and alpaca sheep had apparently the same disease as human beings, and the regulation that the shepherds had to be accompanied by their wives was significant in this connexion. He felt that there was no justification for Mr. Hutchinson regarding Shakespeare as a syphilitic. Time alone could decide whether the use of salvarsan would annihilate tabes and general paralysis. It seemed from Dr. Mott's paper that the milder the symptoms of syphilis, the greater was the tendency of the person to have parasyphilitic affections. He felt that only the most competent and practised workers should be entrusted with investigations such as those concerning the Wassermann reaction. The question of the notification and segregation of syphilitics would soon come under the consideration of a committee of the society, after conference with the Eugenics Education Society. He concluded by paying a high tribute to the value of the debate just terminated.

ASSOCIATION OF REGISTERED MEDICAL WOMEN.

AT a meeting on July 2nd, Dr. CONSTANCE LONG, President, in the chair, Dr. FRASER reported upon a case of *Veronal poisoning* in a woman aged 48; she had suffered from insomnia for six years, and during the last six months had been taking veronal. During the ten days before being seen by Dr. Fraser she had taken 120 grains of veronal. She was then comatose, and died eighty-six hours later. While under observation 24 grains of veronal were recovered from the urine. At the autopsy the kidneys were markedly degenerated. Dr. LONG then gave an account of the work of the committees formed by the British Medical Association in connexion with the Insurance Act. Among the items of work accomplished by the State Sickness Insurance Committee was the drawing up of the pledge and of a memorandum with respect to the formation of local Provisional Committees in the different Divisions. The speaker emphasized the importance to women practitioners of becoming members of the local Provisional Committees, and of all members who had not already signed the pledge doing so forthwith. The Committee had also drawn up a scheme of Public Medical Service, which was suggested for adoption should the negotiations between the Chancellor and the profession break down. Miss IVENS, M.S., representing the North of England Association of Registered Medical Women, pointed out the importance of urging all consultants to sign the pledge, and thus to strengthen the hands of the British Medical Association in its difficult task of working out the problems of the Insurance Act as it affects the profession. The words "urgent necessity" in the pledge would be liberally interpreted, so that no patient in real need of treatment would suffer. The sum of 8s. 6d. had been decided on after careful consideration; it was based upon an average of 5½ visits to each insured person at 1s. 6d. a visit. It was also the regulation rate in the Post Office service. The Insurance Act would affect women practitioners very unfavourably unless the income limit were carefully defined, for they would lose as patients many women clerks, shopkeepers, and teachers, who could well afford more than 8s. 6d. a year. The questions which had been raised were further discussed by Drs. EDE, BENHAM, ROBERTS, LEPPER, and LANE-CLAYPON, and the Committee was asked to ascertain the names of registered medical women who had not yet signed the pledge, in order that they might be urged to do so without delay.

UNDER the will of the late Mr. Thomas Stephen Whitaker, of Everthorpe Hall, East Yorkshire, the following medical charities each receive a bequest of £5,000: Victoria Hospital for Children, Chelsea; the Brompton Hospital for Consumption; the London Fever Hospital; Hull Infirmary; Hull and Sculcoats Dispensary. The Norfolk and Lynn Hospital at King's Lynn also benefits to the extent of £1,000.

Reviews.

MECHANICS AND DISEASES OF THE JOINTS.

THE eighteenth fasciculus of Professor KARL VON BARDELEBEN'S great handbook of human anatomy forms the second part of the first section of the second volume.[1] This section treats of the anatomy and mechanics of the joints, and its author is Professor RUDOLF FICK. We reviewed the first part, which included the anatomy of the joints, in our issue of October 15th, 1904, p. 1014. The second part now under notice treats of the general mechanics of the joints and muscles. The author begins by considering the animal kingdom as a whole, and points out that there are no true joints in invertebrates, in which movements between the sections of a limb take place through the simple bending of a flexible portion, and are not accompanied by friction between the ends of segments. Simple as the movements of some true joints may seem, they are not so in reality, for the cartilage covering the bones is not rigid but adaptable, and the actual surfaces alter in contour during movement. In no case are the joint surfaces exact geometrically simple bodies, either in the cadaver or in life. In some joints the curvature of the surface is spiral. For instance, according to Langer, a sagittal section of the lower end of the femur forms a "logarithmic spiral," the peculiarity of which is that while the proportion between the radii of consecutive neighbouring spiral sections increases in a geometrical progression, the angles formed between these same radii only increase in an arithmetical progression. But even this is not exactly true of the knee-joint. Dr. Fick considers in detail the best methods of investigating the action of joints, and all possible ways of producing artificial joint surfaces. As regards atmospheric pressure in encapsuled joints, such as the hip, he points out that during prolonged traction in life negative pressure disappears owing to effusion of fluid from the vessels, which equalizes the pressure within and without the joint. We think that we do not exaggerate when we say that in this book the mechanics of the joints and muscles are approached and considered from every possible standpoint, and with exhaustive thoroughness and accuracy. The book—for it is an important treatise by itself—is a monument of industry and scientific acumen, but it presupposes in the reader a considerable knowledge of mathematical physics, without which a thorough understanding is impossible; yet much useful information may be got from it by those whose mathematical acquirements are but small.

The twentieth fasciculus, which forms the third part, deals with the mechanics of particular joints and muscles, the consideration of which takes up nearly twice as much space. It represents the outcome of twenty years' personal observations, but although this part alone consists of 667 large and closely printed pages, excluding the index and a very complete bibliography, Professor Fick says that it is still incomplete, in the sense that our knowledge of the subject is relatively narrowly limited, and that he cannot give facts on many points, but only offer conjectures or suggest further investigations. The author's modesty does his work less than justice, for we believe that his handbook will become as standard an authority as the work of the brothers Weber was for many years, and that it will be long before it is superseded by further researches and wider knowledge. He does not restrict himself by a narrow interpretation of his title, but goes thoroughly into such questions as the maintenance of the erect position in varying circumstances, and illustrates by figures the conditions of the "normal," the "comfortable," and the rather strained "German military" positions, and the effect of pregnancy on the balance of the body.

After considering the mechanics of each joint, a section is devoted to an investigation of the effects of the action of each and all the muscles acting upon it, and of the amount of force that each muscle separately and then each group of muscles is capable of exerting

[1] *Handbuch der Anatomie und Mechanik der Gelenke, unter Berücksichtigung der bewegenden Muskeln.* Von Rudolf Fick a. ö. Professor und Vorstand des anatomischen Institutes der Universität Innsbruck. Zweiter Teil: Allgemeine Gelenk- und Muskelmechanik. Jena: Gustav Fischer. 1910-11. (Sup. roy. 8vo, pp. 392. Abbn. 350; Tfn. 2. M. 12.) Dritte Teil: Spezielle Gelenk und Muskelmechanik. Mit 248 Teils farbigen Abbildungen im Text und 18 Tafeln. (Preis M. 33, geb. M. 35.50.)

in an average individual. In the case of even so apparently simple a joint as the elbow, which he shows not to be a simple hinge, a very great many factors have to be considered, and in the joints capable of movements of several kinds in many directions the problems which he sets himself to solve are exceedingly complicated. Not only are normal joints considered, but also the conditions affecting the joints in certain abnormal conditions, such as scoliosis, knock-knee, club-foot, flat-foot, etc. A good many facts are quoted, giving the strength of ligaments and the force required to dislocate or disorganize a joint.

In the section on the movements of the spinal column in the living will be found an interesting discussion of the so-called serpent-men or boneless men who appear in music halls and such-like places of amusement. This kind of performance is very old, as an ancient Greek drawing shows. Exactly similar drawings are given of a German female acrobat, and most striking photographs of a male contortionist, with a hypothetical skeleton in one of the most extraordinary poses. Dr. Fick says that this extraordinary flexibility is not due to any special looseness of joints so much as to a greatly exaggerated extensibility of the "antagonistic" muscles concerned. In the chapters on the hip-joint there is a very thorough inquiry into the effects of contractions of the joint such as occur in hip disease, and of the compensatory arrangements by which the affected person is enabled to reach the ground with the foot. The author finds fault with the view, which he attributes to many surgeons, that the tilting of the pelvis in such circumstances is effected by flexion of the lumbar spine. In a long and intricate consideration of this question he points out that the movement is in the hip-joint of the sound side, and that the lumbar curvature is secondary. This is no doubt the case, and we should hardly have thought that many surgeons taught otherwise. The sections on the knee are very full, and the "practical remarks" contain an interesting discussion of the anatomy of the various lesions of the knee-joint, including internal derangements. In discussing the ordinary indirect fracture of the patella, he gives the "work" of which the quadriceps is capable as the enormous sum of 142 kilogrammeters. An explanation of the permanent loss of power which so often follows fracture of the patella even when a good result is obtained is given on theoretical grounds, and as Dr. Fick says, it would be interesting to study the conditions more accurately by experiment. We have only been able to touch on a few of the interesting discussions in this book. There are many others on other joints which will well repay close study. The comparative anatomy of the joints is briefly dealt with.

Of the eighteen plates at the end of the volume, seven are excellent reproductions of *x*-ray pictures, with superposable outlines, of the bones, etc., concerned.

It would be a work of supererogation to praise the well-known handbook on *Diseases of the Joints and Spine*,[2] by Mr. HOWARD MARSH, which has been familiar to many generations of students. But the best handbooks become obsolete, and Mr. Marsh has been well advised to publish a third edition, which has been brought well up to date. In this work Mr. GORDON WATSON has been associated with him. New chapters on septic arthritis and on arthritis in specific infective diseases and on intermittent hydrarthrosis and coxa vara have been added. To avoid unduly increasing the size of the book, some of the histories of cases which formed a useful and prominent feature of former editions have had to be omitted, and the advance of knowledge has made it necessary practically to rewrite several other chapters. Thus altered and added to, the book should maintain its place in the estimation of students and practitioners, and continue to be valued and read. Of the illustrations, the excellent coloured frontispiece, which represents tuberculous disease of the synovial membrane of the knee-joint, is most interesting. There are three other coloured plates, and these and the black and white illustrations are all good.

[2] *Diseases of the Joints and Spine.* By Howard Marsh, M.A., M.C.Cantab., F.R.C.S., Master of Downing College, and Professor of Surgery in the University of Cambridge. New and Enlarged Edition, thoroughly revised by the Author and by C. Gordon Watson, F.R.C.S., Surgeon to the Metropolitan Hospital, Assistant Surgeon to St. Bartholomew's Hospital, etc. London: Cassell and Co., Limited. 1910. (Cr. 8vo. pp. 647, plates 12, figs. 100. 10s. 6d.)

DEFECTS OF COLOUR SENSE.

DR. HANS KÖLLNER'S book on the defects of the colour sense[3] is one of the best books on colour blindness that has been written. It is divided into two portions, the first dealing with congenital defects of the colour sense, the second with acquired defects. Köllner gives the percentage of colour blindness at 7 or 8 per cent. of men, or, if slighter defects are included, 10 per cent. The importance of colour names is thoroughly recognized, and in all methods recommended—as, for instance, the lantern and spectral apparatus—they are employed. Holmgren's wool test is severely condemned, and has not been employed in any of the cases related; the method is not even recommended as a subsidiary test. He gives in support of this opinion Nagel's examination of a large number of railway men who had previously passed the Holmgren test. Nagel found 5 per cent. colour blind—that is, a greater number had escaped detection than had been detected. Many facts—as, for instance, that simultaneous contrast is increased in the colour blind—which are of fundamental importance in testing for colour blindness, and which were discovered by Edridge-Green over twenty years ago, are attributed to recent writers. In the division on acquired defects of the colour sense there is a very good section on chromatopsia. The condition of the colour sense in various diseases is stated. A careful comparison is given of the defects in the colour sense found in cases in which the neuro-epithelial layer of the retina is diseased in relation to those cases in which the other systems of neurons, from the retina to the perceptive centres in the brain, are affected. In the first division—that is, where there is disease of the neuro-epithelial layer—there are preponderating (but probably not exclusively) photochemical defects of the colour sense—acquired blue-yellow blindness. There may be a general diminution of sensibility for all colours. Subjective symptoms, flicker, coloured seeing, and positive scotoma are found. There is no relation between the defects of the colour sense and visual acuity. Torpor retinae is found with considerable defect of dark adaptation (hemeralopia). When there is disease of the other neuron layers a gradual diminution of the colour perception is found passing through red-green blindness to total colour blindness. Visual acuity diminishes at the same time and proportionally to the dimnution of colour perception. Acquired blue-yellow blindness has not yet been found. Dark adaptation is not as a rule affected, and remains the same as in the normal. The Purkinje phenomenon remains as in the normal. References are given, but might have been more extensive; in those on the subject of the normal colour sense and that of congenital colour blindness on p. 102, not a single reference is made to any work not in the German language. It is true that Edridge-Green's theory of vision and colour vision are both given, but the reference is to the *Berliner klin. Wochenschrift*, 1909.

[3] *Die Störungen des Farbensinnes, ihre klinische Bedeutung und ihre Diagnose.* Von Dr. Hans Köllner. Berlin: S. Karger. 1912. (Sup. roy. 8vo, pp. 427; Abb 33; Tfn. 3. M. 17.)

REFORM IN ANATOMICAL TEACHING.

WE welcome the textbook of *Practical Anatomy*,[4] by two well-known London teachers, Mr. F. G. PARSONS and Dr. WILLIAM WRIGHT, not only for its own sake, but because in it a definite attempt has been made to discard some of the unnecessary details which encumber nearly all manuals of practical anatomy and which the student thinks it his duty to prepare for examination, if not to remember after obtaining his degree. The object of the authors has been to provide a book which shall contain all those anatomical facts which it is essential for a medical student to know, omitting the anatomical information which is not necessary for the student. With this object most teachers would actively sympathize, but differences of opinion would tend to show themselves when it had to be decided what was and what was not essential. On the whole, the authors seem to have hit the happy medium and produced a book which is clearly written, admirably arranged, and which assuredly will be popular with the average student. They lay great stress on the technical methods of displaying the

[4] *Practical Anatomy: The Student's Dissecting Manual.* By F. G. Parsons, F.R.C.S., and William Wright, M.B., D.Sc., F.R.C.S.Eng. In two volumes. London: Edward Arnold. 1912. (Demy 8vo, vol. i, pp. 483, figs. 189; vol. ii, pp. 389, figs. 190–332. 8s. 6d. net per vol.)

various structures successfully, and on the positions and relations of structures which experience has shown to be of practical importance. The book is written essentially for men who intend to work conscientiously at the body and see things for themselves—the only satisfactory way of learning anatomy—and will not appeal to those, happily a small number, who dissect as little as possible and trust to home reading to obtain the requisite knowledge of the subject.

There are, however, two or three points to which we should like to refer, for the authors, whilst not omitting some reference to all the really important structures, have, we think, been too brief in certain instances. For example, the pelvic fascia is dismissed in a line or two; only the origin of the levator ani is given, and "it hangs like a curtain from a curtain rod"; though attention is directed to the lymphatics generally, no special account is given of the glands which receive the collectors from the tongue. Moreover, we do not think it right to associate the pyriformis with the levator ani and coccygeus muscles to form a pelvic diaphragm or muscular floor to the pelvis (p. 216), or agree that the levator ani has a large aperture in its anterior portion for the passage of the vagina (p. 233). The name of "levator vaginae," which the authors apply to a part of the levator ani, is usually given, we believe, to a part of the constrictor urethrae muscle.

Apart from these and two or three printer's slips, the book is singularly free from error and ambiguity, and we congratulate the authors on the success which they have achieved. For they have recognized to the full the increasingly practical character of medical education and have written with a clear conception of the requirements of the medical student of to-day. Honestly used, the book will direct him along the path he must travel to be successful, by developing his powers of observation, and the faculty of estimating what he observes at its due value.

There are 322 illustrations in the two volumes, of which some 15 per cent. are repetitions either once, twice, or three times. Although many of them are rough and some unsatisfactory, such as the photographs of the brain sections, they will be found, for the most part, to be of the greatest assistance to the student in his work. They have this further merit that, being simple and effective, they are likely to stimulate the student to make rough sketches of his dissections for himself in a notebook, one of the best possible ways of impressing on the memory the many facts which must be remembered. We cordially recommend the book and wish it a prosperous career.

THE "BRITISH GUIANA MEDICAL ANNUAL."

THE late appearance of the *British Guiana Medical Annual* for 1910[5] (1912) is due, as is explained in the preface, to the illness and absence of the editor. Better late than never, however, and the volume contains the usual wealth of material. In the first part are papers, for example, on enteric fever, midwifery, village sanitation, anthrax, and the nastin treatment of leprosy; then in the second part come clinical notes, and in the third part the *Transactions* of the British Guiana Branch of the British Medical Association for 1909 and 1910; the fourth part contains the public health statistics and medical distribution of the colony. Dr. Ozzard's paper on Village Sanitation in British Guiana is a very important one, dealing in succession with water supply, disposal of faecal matter, and drainage. Though machinery exists in the form of ordinances, yet in actual practice none of these matters are properly carried out, and the sanitary condition of most of the villages is deplorable; such insanitary conditions must largely add to the disease and death-rate of British Guiana generally and keep up the name for unhealthiness which it would seem to possess. Dr. Ozzard believes that everything depends on the village authorities themselves as to whether, as he puts it, they intend to improve the sanitary conditions of their villages or whether they prefer to continue wallowing in the mire. A word from some higher authority, one would imagine, might have the desired effect of stimulating these village worthies. Dr. Ozzard is to be congratulated on his pluck in exposing this unsatisfactory state of affairs, and it is to be hoped that his paper may lead to action. Another paper that merits attention is that by Dr. Wise on the nastin treatment of leprosy. Dr. Wise, after an exhaustive trial of the remedy, concludes that the great majority of cases have not been influenced, some have got considerably worse, while others have improved to such a degree that in three cases the results approximated to a cure. Since the favourable results are so few, longer and wider experience alone will, as Dr. Wise observes, demonstrate whether the cases were instances of natural improvement irrespective of the nastin treatment or whether the injections played an active part in the disappearance of the leprous deposits. Much the same results have been obtained in other parts of the world with the nastin treatment. On the whole they must be looked upon as disappointing. A very good report on the Second International Scientific Conference on Leprosy is furnished by the Hon. J. E. Godfrey, Surgeon-General of British Guiana, and some of the other papers contained in the *Annual* are also very interesting.

[5] *The British Guiana Medical Annual for 1910.* Edited by K. S. Wise, M.R., B.S., B.Sc., D.P.H. Seventeenth year of issue. Demerara: Printed by the "Argosy" Company, Limited, printers to the Government of British Guiana. 1912 (Demy 8vo, pp. 221. 5s.)

NOTES ON BOOKS.

THE first edition of Dr. CALDER'S *Lectures on Midwifery for Senior Students and Midwives* appeared in 1906. It has been revised, rewritten, and re-illustrated, so that the second edition[6] is practically a new book. It is, taken as a whole, a very good book, a clear and safe guide for the pupil. There are occasional lapses. At p. 211 we read of "Bank's" retraction ring, when Bandl's is obviously meant. At p. 161 the reader is told that dead matter "*develops*" germs; and again at p. 169 that "decomposition *develops* germs." Of course, it is the other way about—germs cause decomposition. There are many illustrations in the text, but these are very unequal in artistic value. Some are Dr. Calder's own, and are frankly diagrams; others are borrowed. Several of them display the accoucheur's hands clothed in india-rubber gloves. The author does not enjoin the use of gloves himself, and in this we agree with him. But, when speaking of the risk to the midwife of cuts, scratches, or pimples on her hands, we think he might have mentioned the safety conferred by an india-rubber finger-stall. We have no doubt that his book will be popular; and it deserves to be.

There are already a fair number of books dealing with gynaecology from the standpoint of nursing, but the author of none of them has attacked his subject so successfully as to leave no room for a rival. For this reason alone *Gynaecological Nursing*,[7] by Dr. ARTHUR E. GILES, would be entitled to consideration, and this it will be found to repay. There are those who cavil at the extent to which the modern nurse is expected to specialize, and at the number of subjects which she is invited to regard as requiring separate and specific study. In such criticism there is doubtless some truth, but in the case of gynaecology Dr. Giles disarms it by showing in his chapters on the anatomy, physiology and pathology of the reproductive organs that there are a good many points with which a woman who is to prove an efficient assistant should be more familiar than are the general run of nurses. The same conclusion may be based likewise on the chapters dealing with the preparation of patients for examinations and operations; with after-treatment; and with complications. To describe complicated subjects briefly, yet adequately, and truthfully yet in simple language, is often a more trying task than to write a complete treatise thereon. And in these respects Dr. Giles's work leaves little to be desired.

Mr. C. H. HAMPSHIRE'S *Volumetric Analysis*[8] is a useful little book on the subject for the use of students. It is written primarily for pharmaceutical students, and the volumetric operations requisite in testing pharmacopoeial chemicals receive particular notice. The systematic arrangement of the matter and the very clear way in which it is dealt with make it an excellent textbook for anyone commencing the study of the subject.

[6] *Lectures on Midwifery for Senior Students and Midwives.* By A. B. Calder, M.B., M.R.C.S. Second edition. London: Baillière, Tindall, and Cox. 1912. (Med. 8vo, pp. 264; figs. 180. 5s. net.)

[7] *Gynaecological Nursing.* By Arthur E. Giles, M.D., B.Sc., F.R.C.S., M.R.C.P. With 41 illustrations. London: Baillière, Tindall and Cox. 1912. (Crown 8vo, pp. 187. Price 3s. 6d. net.)

[8] *Volumetric Analysis.* For Students of Pharmaceutical and General Chemistry. By Charles H. Hampshire, B.Sc.Lond., A.I.C. London: J. and A. Churchill. 1912. (Crown 8vo, pp. 110; figs. 3. 3s. 6d.)

THE PARLIAMENTARY COMMITTEE ON PROPRIETARY MEDICINES.

THE ANALYSES IN "SECRET REMEDIES."

ON July 4th the examination of Mr. E. F. Harrison by members of the Committee was continued.

In answer to Mr. Glyn Jones, who asked whether the witness had any views with regard to the practice of having on the market identical substances known by varying trade names, Mr. Harrison said he had no definite views, but he recognized there were distinct disadvantages. On the other hand, to attempt to upset the trade-mark rights of these proprietors would be a very big undertaking. The matter was dealt with by societies such as the Pharmaceutical Society, which published a list of names for such articles, which were neither the trade mark nor the long chemical names.

Mr. Glyn Jones asked the witness whether the distinction he had made at the last meeting between the four classes of proprietary medicines—the three non-secret and the one secret class—was not one of a degree of secrecy.

Mr. Harrison thought it was rather more than that. The difference between stating ingredients and stating no ingredients was more than one of degree; it was an absolute difference.

Mr. Glyn Jones: Your Class 3, in which practically all the ingredients are stated, are prescribed by the public for themselves, so that a complete disclosure does not prevent self-medication?

The witness agreed that this was so.

In Hewlett's mist. bismuthi there is a secret not discoverable by analysis for which doctors think it worth while to call upon their patients to pay 6s. a lb. more?—I should not admit that it was not discoverable by analysis.

Would a doctor dispense Hewlett's in preference to his own mixture?—It is often done.

In reply to the Chairman, the witness said there were mixtures of which a full account could not be given by analysis, but he would not like to say the preparation in question was one of these.

Mr. Glyn Jones observed that if a full account had been made public it would have saved the medical profession 6s. a lb. He proceeded to refer to an editorial in the BRITISH MEDICAL JOURNAL of March 23rd last (p. 683), and asked if the witness thought it an accurate or fair description of a soothing syrup which consisted of lemon juice, tincture of saffron, syrup of tolu, and salt, to say it was a mixture containing hydrochloric acid.

Mr. Harrison said that a mixture of salt and lemon juice did actually contain hydrochloric acid. Nevertheless, he did not think the description would have been a fair one if the composition of the syrup had been as suggested.

Might not the statement in the JOURNAL be quite the natural result of analysing a substance without any idea beforehand of its contents? It is found to be acid, chlorides are found, and the assumption is made that the acid is there in the form of hydrochloric acid?—It might be, but that is not the case here. I have never made any such unwarrantable assumption. The chlorine, sodium chloride, and the free acid were determined separately, and the balance, the free acid, represented hydrochloric acid.

In making the point that where his analysis and the statements of proprietors of proprietary medicines as to contents were at variance, he did not impugn the good faith of the proprietors, Mr. Harrison mentioned an instance to show how a proprietor might be under a *bonâ fide* misapprehension. At page 35 of *Secret Remedies* there was an analysis of the American nostrum, tuberculozyne. The first sample did not contain any trace of copper, and the maker stated that he relied on copper for the efficacy of the preparation. A subsequent sample did contain a trace of copper, and it afterwards appeared that the preparation was imported into this country in iron drums. The merest tyro in chemistry knew that iron would act on a copper solution—the copper would be deposited and the iron would go into solution.

Mr. Glyn Jones: Might not the fact that only one libel action is pending in regard to *Secret Remedies* be accounted for by the fact that, in order to succeed, the proprietors would have to disclose their formulae?—I should think if they could win without disclosing their formulae more might have attempted to do so.

Would not the publication of an analysis and the casting on the maker of the onus of either accepting it by default or doing what he did not want to do, giving his secret away, lead to unfairness?—It might lead to unfairness, but I do not know, as a matter of fact, that if a libel action was brought the proprietor would be compelled to disclose the formula. If he could prove the analysis was wrong in a material particular he would probably win his case.

As to the suggestion that out of 146 preparations mentioned in the first volume of *Secret Remedies*, only 75 were listed by a big firm of wholesale proprietary medicine dealers, Mr. Harrison said there was unquestionably a very large traffic which did not go through the retailers. A large number of these articles were only supplied direct through the post, and it would have been quite unfair and unrepresentative to leave them out. He did not want it to be understood that these had not a large sale; some of them undoubtedly had.

The Chairman ruled out, as not being properly addressed to a non-medical witness, questions by Mr. Glyn Jones as to the source whence medical men derived their knowledge of the therapeutic value of drugs.

As bearing on the question whether the statement on the label of the full ingredients of a preparation would prevent exaggerated claims being made on its behalf, Mr. Glyn Jones called attention to a medicine as to which the statement on the label of the contents was borne out by the analysis in *Secret Remedies*, and on behalf of which very wide claims were made.

Mr. Harrison said the public could bring the matter before a medical man or chemist, and ask whether it was likely to do any good.

Mr. Glyn Jones: Do you think a mixture of sugar and water could be launched at a popular price as a proprietary medicine?—I think it could. I believe a cancer cure which consisted of water without the sugar lived for many years.

The Chairman: Did they not claim it was "electricity dissolved in water"?—Yes.

Mr. Glyn Jones: Do you suggest any State censorship of the claims made in advertisements?—Yes, but I do not mean a censorship in the sense of submitting everything to an official, only that if exaggerated claims were made it should be the duty of some one to deal with the matter.

Mr. Lawson: That is done now by the Public Prosecutor?—Purely theoretically. (Laughter.)

In reply to a further question, the witness said that just as the JOURNAL could not analyse everything offered for advertisement in its columns lest it should be regarded as guaranteeing the article, so the State should not exercise a strict and complete censorship, or it might be regarded as responsible for guaranteeing the quality of every preparation on the market. It should only interfere in flagrant cases, as it notoriously did not now.

In reply to Mr. Bathurst, the witness said it was not possible for alkaloids to pass undetected in the analyses of medicines, because, although it was very difficult to identify some of the lesser known alkaloids completely, there were certain general tests which applied to all, and these it was quite easy to use. He agreed that it would be an advantage if it were impossible to describe a medicine by several names.

Mr. Bathurst: I do not quite see what is the advantage of mentioning the ingredients on the label unless, in all cases and not in the case of poisons only, you indicate the amounts. Surely it would be possible to avoid all liability by introducing infinitesimal amounts of what may be beneficial drugs and larger quantities of drugs having no effect?—In this case the principle of *de minimis non curat lex* would apply; a substance could hardly be deemed to be present if it was there only in infinitesimal quantity. The witness added that from many points of view he would prefer to have the quantities stated on the label, but in his opinion in some cases it would inflict hardship upon manufacturers by giving away a valuable trade secret.

Mr. Bathurst: Has not the public weal to be considered before these small questions of proprietary advantage?—Yes, but a small and unproved advantage to the public could hardly weigh against a definite injustice to the manufacturer. On the other hand, the great advantage to the public of declaring the ingredients is quite fairly set

against the small harm likely to be done to manufacturers.

Should herbalists be dealt with by legislation?—Certainly; I think it is highly desirable.

Would any serious injustice be done if herbalism were treated as a misdemeanour?—I think it would be doing considerable injustice and would be setting up a dangerous principle.

Are there any expert herbalists in the country?—I could not say. If there are, they are exceedingly few.

It is not a profession which the British Medical Association would recognize?—Certainly not; the only persons who are entitled to be called expert herbalists are pharmacists who undergo a long training in the botany of the *materia medica* and who are well versed in herbal drugs.

Sir Henry Dalziel: What was the primary object of publishing *Secret Remedies*?—I think it was simply to inform the public of the composition of typical examples of medicines that have a wide vogue. I understand that about 150,000 copies have been sold.

Have all the large manufacturers accepted your report?—Whether their not having written in protest is to be taken as having accepted is a matter of opinion. As far as I know, none of them did write.

The witness, in reply to a further question, said he had no desire to stamp out all proprietary medicines; there were a large number he had no desire to interfere with.

In reply to Sir Philip Magnus, he said that, although there was no direct evidence that the publication of *Secret Remedies* had lessened the sale of these proprietary remedies, some of those mentioned in the first volume had disappeared, and one could only hope that the book had something to do with it.

The Chairman: You have made more analyses of these medicines than any other analyst?—Probably.

Have you come across any new drug or new synthesis amongst them?—No, except, perhaps, one that might be so described.

Have you come across anything to suggest the expert chemist or scientific pharmacist?—Yes, in some of them, certainly. Some are very well compounded, and many of them—especially the tinctures and tabloids—bear evidence of having been manufactured by a large firm.

But a large number of those in this book appear to be of a kind that could be made by anybody in a back room with a pair of scales, a barrel of drugs, and a water supply?—Undoubtedly.

Dr. Chapple: And without the scales?—Yes. (Laughter.)

The Chairman: You have not come across drugs "discovered by priests in tropical forests"?—No; it is only fair to say that if they were new they might be mistaken for an inert substance, but I only mention that as the barest of possibilities.

There seems to be a constant succession of these proprietary remedies: a new one every week?—Yes, on the average every week.

Would it be correct to deduce that your researches have shown the existence on a large scale of deliberate fraud?—Yes, I do not think that is overstating it.

And the publication of wholly unfounded claims?—Yes.

And this constitutes a grave evil calling for remedial legislation?—Yes, especially in view of the fact that it appears to be getting worse.

In reply to further questions, the witness said there were firms that specialized in this class of production, and various widely advertised specifics frequently emanated from one source.

In France, Germany, and Italy declaration of the formulae was required by law. He had been informed that the law was not far from being a dead letter in France, because there was very little provision for checking the statements. He did not think that remark applied to Germany, although there, too, the law appeared to be evaded to a considerable extent.

As to the publication of recommendations of proprietary medicines by "analysts," Mr. Harrison explained that there was no legal restriction of the term "analyst" or means of preventing anyone from using the letters "F.C.S.," implying membership of the Chemical Society. The Institute of Chemistry, however, was protected by its charter, and unauthorized persons could not use the letters "F.I.C."

The Chairman: I suppose you realize that you will be quoted as saying, as a result of your evidence here, that precious secrets of a medicinal character are not discoverable by analysis?—I only intended to say that it is possible and that the cases would be exceedingly rare.

The Chairman quoted an advertisement on behalf of Beecham's pills, stating that it was well known that in a vegetable compound many ingredients were impossible of identification by chemical analysis, especially in the case of vegetable ingredients. The advertisement continued: "Beecham's pills cannot be analysed, and all published analyses are hereby pronounced erroneous and misleading." The Chairman asked the witness's opinion on this statement.

Mr. Harrison replied that the correct analysis might be impossible in the sense that, having put the main ingredients into a preparation it would be quite possible to put in very small quantities of twenty or thirty other things which no analyst could disentangle. While not suggesting that ingredients difficult to detect were necessarily worthless, seeing that they might have some medicinal action in modifying other drugs present, he did not think they could be regarded as principal or very important ingredients.

The Chairman: The proprietors of Beecham's pills claim that they put in the remedy half a dozen substances not mentioned in your analysis. Have they any substance of active medicinal value which eludes analysis?—They might have substances which modify to an important extent the action of the aloes and soap, and which elude analysis.

Then to what extent are these analyses in *Secret Remedies* of value?—A large number do not include any vegetable substances, and as to those there is practically no loophole for error or omission. Where there is an extract or other vegetable preparation there is always the possibility of some ingredient not being detected which may have a modifying effect on the action of the drugs. In the case of pills, ingredients of rather more importance might not be detected if present in very small quantities; but, when all these allowances have been made, it only means a very small discount.

Dr. Chapple: Will it not be so small as to have no medicinal significance?—I could not say that in some cases; in others I could.

The Chairman: Would the adding of those other non-discoverable drugs in minute quantities which might have a medicinal value be the result of profound chemical and pharmaceutical knowledge?—No, I do not think so. They may be in some cases survivals from a somewhat earlier time when long prescriptions were more often given.

Are we to infer that chemical or therapeutical knowledge has rather decreased than grown?—Not at all, but some of these have survived.

I am very anxious, if possible, to get a definite statement from you on this matter. Do you state with regard to these analyses that in the case of many it is possible there may be precious and mysterious drugs undiscoverable by analysis?—As far as possible in every case any degree of doubt there may be is suggested by the way the analysis is introduced or by the context. It is very difficult to convey the precise degree of reservation implied. One may be sure in one's own mind and not have positive evidence.

In these qualifications you, as a scientific man, are endeavouring to speak with complete accuracy. You are avoiding anything in the nature of a general statement?—Yes.

Mr. Harrison called the Chairman's attention to page 261 of *More Secret Remedies*, on which was a rather interesting case in point. A formula for Dr. Williams's Pink Pills was given in the first volume, and the formula as published in France by the makers did not represent the formula as sold in England. The differences could not be explained by the limitations of the powers of analysis, and it was evident that the makers' statement did not in the least invalidate the formula obtained by analysis. The makers might make a *bona fide* statement, but the result of actual analysis must be more representative of what a substance was than makers' statements.

The Chairman: Avoiding meticulous, scientific accuracy of statement, for all practical purposes you would say analysis does show the composition except in the case of

pills and substances likely to contain any considerable quantity of vegetable extract, and materials not found would be subsidiary and not active principles?—Almost without exception, any active principle in medicinal quantity could be detected.

There is nothing, then, in your definition of the limits of analysis which qualifies your statement as to the evils of this trade?—Nothing whatever.

Mr. Newton: If a manufacturer desired to impress the public by claiming a secret in his preparation he could, after preparing his medicine, add infinitesimal traces of various substances—traces so minute as not to be discoverable by the most scientific analysis, and therefore, obviously, of the least possible medicinal value?—Yes.

Finally Mr. Harrison put in a memorandum containing examples of the abuse of the Government stamp in the sense of claiming it as a guarantee. He said this was not done nearly as much as it used to be, but the examples were recent ones. The abuse always occurred in connexion with the right to have the name of the manufacturer on the stamp if bought in sufficient quantities. One manufacturer printed the words "Protected by His Majesty's Royal Commissioners," and also exhibited the Royal arms. It was a frequent practice to put the claim in this way: "Owing to the excellence of so-and-so's remedy and to prevent spurious imitations, His Majesty's Honourable Commissioners of Customs have authorised the name of—(here was printed the name and address of the proprietor)—to be printed on the Government stamp."

The Chairman: The Committee are very much obliged to you, Mr. Harrison, for your very interesting and very valuable evidence. They appreciate both the scientific accuracy and, if I may say so, the conscientiousness with which it has been given.

MEDICATED WINES.

Dr. Mary Sturge attended, at the request of the British Medical Association, to give evidence on the subject of medicated wines. She said the accepted definitions of medicated wines as "wines so medicated as to be unfit for use as beverages" did not apply to the widely advertised so-called medicated wines now on the market. She drew attention to the alcoholic strength of these preparations; they were on approximately the same level as port wine, as they contained from 16 to 20 per cent. of alcohol. The coca wines contained the strong alkaloid, cocaine; to others various salts or meat extracts were added. There was also a group of so-called digestive tonics to which peptons had been added. The "fancy" names given avoided any hint that they contained alcohol. She admitted that the word "wine" was used, but she was convinced that the public did not realize the proportion of alcohol present. The British Medical Association urged that as these wines were taken freely by the public the proportion of alcohol should be stated on the label. The advertisements were most attractive and alluring. One stated the wine to be "a natural nerve and brain food."

The Chairman: I take it there is no such thing?

The Witness: I do not see how alcohol, being a nerve depressant and nerve irritant, can be claimed to be a nerve food. Emphasis was also laid in advertisements on the amount of nutriment present, but analysis showed the proportion of meat extract to be nothing approaching that contained in an ordinary cup of beef-tea. The advertisements were misleading—they laid greater stress on the presence of meat extract than the proportion warranted, and they said nothing about the alcohol which was present in such considerable proportions. The witness quoted statements deprecating the widespread use of these wines by the medical profession, magistrates, temperance workers, and others. A magistrate urged that the name and quantity of every ingredient of so-called medicated wines should appear on the label; others of her correspondents stated that the wines were taken by pledged teetotalers, by girls and young women, in the belief that the wines were non-alcoholic, and by children. The witness herself knew of definite cases of inebriety due to taking medicated wines, and ninety members of the medical profession, whom she had circularized, had supplied particulars of other cases. One medical man wrote of "a young lady, 21 years of age, who was found in a condition bordering on delirium tremens. She had been drinking three bottles a day of a widely advertised meat wine." The witness added that cocaine wines seemed to lead to extremely serious consequences and sometimes to death. Medical opinion on this question, she believed, was now almost unanimous, and in support of this statement Dr. Sturge quoted opinions adverse to medicated wines by Dr. Robert Saundby, Sir A. Pearce Gould, Sir James Barr, Dr. G. Sims Woodhead, Dr. Robert Hutchison, and others. An East End doctor wrote of the wide use of these stimulants by the poor.

The witness mentioned the claim in the advertisements of one of these wines that 6,000 medical men had recommended the preparation. A medical man had challenged this statement, and the firm wrote, in the course of a correspondence, as follows: "We should be willing to allow you to call at our works and inspect testimonials; upon the distinct understanding that you will give us an undertaking in writing that no use whatever will be made of the information and none of the medical men will be written to." It was the practice for this firm to send out to the public once or twice a year coupons which, if signed by a doctor, entitled the holder to a free bottle of the preparation. The medical man was put in an awkward position if he felt he ought to refuse to sign the coupons, and it was conceivable that signatures thus obtained might be the "recommendations" referred to in the advertisements. Dr. Sturge said that on behalf of the British Medical Association she suggested that the name and quantity of each constituent of so-called medicated wines should be stated on the label. In her own opinion the interests of the community required that the advertisements should be nearer the truth than they were at present. That the alcoholic content should be stated seemed to be absolutely essential.

Mr. Glyn Jones: Do you take the view that the medical profession should discourage the use of alcohol in the treatment of disease? The witness replied that the object of the profession was to find out scientific evidence on all such points. At present the evidence was strongly against alcohol. As to the prescription of these wines by medical men, the witness said the profession was prone to use new things simply because they were new, but the opinions of medical men generally had materially altered in regard to this matter.

Mr. Glyn Jones called attention to advertisements of whisky, gin, and stout, in the BRITISH MEDICAL JOURNAL, but the witness said that was a different question. These were known to be alcoholic drinks, whereas her point was that the so-called medicated wines were advertised without any hint that they were alcoholic. As to a suggestion that the profession could do a great deal to discourage the use of these wines, the witness said that it could not contend effectively against specious and wide advertising. The profession was doing all it could by refraining from prescribing.

In reply to Dr. Chapple, the witness said she was certain that if a large section of the public knew these wines were alcoholic they would not use them. Replying to Dr. Lynch, she said that the evidence was strong that their use was increasing amongst women. The firms producing the wines reported a growing demand.

IN the July number of *Pearson's Magazine* much prominence is given to an article, "Kill that Fly," which, it is stated, marks the opening of a campaign, or a first campaign—for it ought to be repeated next year—against the house-fly. Clear, accurate, and strikingly illustrated, the article shows how the domestic flies and the blue-bottle are not only dangerous themselves, but danger-signals of neglect in and about houses and stables, neglect which, even without the flies, would not be free from risk.

THE Factory Girls' Country Holiday Fund, to which we have frequently drawn attention, is again asking for support. The object of the fund is to assist young women working in London factories to spend a week or a fortnight in the country. The girls make weekly contributions towards the expense, and the fund provides the balance. The managers have had to make a rule this year that no young woman who has been away for three successive years can be assisted again this year. Those sent will, therefore, be the youngest and poorest of the working girls, many of them being just over school age, whose earnings are very small. Donations may be sent to the honorary secretary, Miss Paget, 28, Campden Hill Square, W.

EPSOM COLLEGE.

THE annual general meeting of Epsom College was held at the office, 37, Soho Square, on Friday, June 28th, when Sir HENRY MORRIS, the Treasurer, was in the chair. There was a large attendance of governors.

Report of Council.

After the announcement by the SECRETARY of the successful candidates for pensionerships and foundation scholarships (particulars of which were advertised in the BRITISH MEDICAL JOURNAL of July 6th, p. 58), the CHAIRMAN submitted the annual report of the council to the governors. In proposing that it be approved, he drew attention to the paragraph which referred to the extraordinary general meeting of the governors held in November last for the express purpose of deleting certain words from By-laws 24 and 16. It was found that by By-law 24 as it then existed it was possible that the school year in September might commence without the full number of foundation scholars, and that the vacancy or vacancies would remain unfilled until the ballot of the following June, and the same was the case with the pensioners owing to By-law 16. This would be obviated in future by the removal of the restriction as to the number of vacancies occurring between the periods mentioned in the By-laws 24 and 16, which the council might fill up before the end of September of any year. With regard to the Royal Medical Foundation, although a great many of the pensionerships and annuities were secured by investments derived from legacies and donations, fifty ordinary pensioners and fifty foundation scholars had to be provided out of the subscriptions and donations to the Royal Medical Foundation, and to do this a sum of nearly £5,000 a year must be obtained through these means. He therefore hoped that the local secretaries would continue to render the fund the advantages hitherto derived from their valuable services, and that other friends of the college would assist to induce those in and out of the profession who are not subscribers to become so. With regard to the school, he was pleased to report that it was in every respect successful. The tone, and discipline, and general work were all excellent, the school games were flourishing, and all the school institutions were in a thriving and robust condition. Last, and not least, the number of boys in the college was the highest on record, and there was a waiting list for entrance. But some governors would ask, if this were the case, was not the college making a good profit on its school account? His answer was, No. There was a profit on the total receipts and expenditure, but to make a profit on the educational work was not an object with the council, their aim being to provide as good an education as it is possible to get in any other secondary school in the country at as cheap a rate as possible to the parents or guardians of the boy. It might be necessary before long to raise the education charges, and, indeed, the matter had more than once been under consideration, but this would be warded off as long as possible, and when done, if done, would not be for the purpose of making a profit or storing up capital.

The report stated that the council had decided to carry out further urgently needed structural alterations at the college. The General Medical Council had added the name of the college to the list of recognized institutions approved of as places at which medical study might be commenced. Attention was drawn to the fact that the thanks of the governors were due to Sir Henry Morris for having so indefatigably urged upon the General Medical Council the expediency and the justice of permitting adequately equipped public schools to be approved as institutions in which the preliminary sciences might be studied, and the time given to such studies counted as part of the first year of the medical curriculum, with the result that many of the great schools of the country had now been duly recognized. For this and many other services which Sir Henry Morris had so freely given to the college, the council proposed that he should be elected a vice-president of the college.

Election of Sir Henry Morris as a Vice-President.

Various formal resolutions having been passed, Sir Henry Morris was elected a vice-president on the motion of Sir WILLIAM CHURCH, the chairman of the council.

BRITISH MEDICAL BENEVOLENT FUND.

AT the June meeting of the Committee 14 cases were considered, and grants amounting to £81 made to eleven of the applicants. Appended is an abstract of the cases relieved:

1. Widow, aged 55, of Lic. Med. Dublin. Quite unprovided for at husband's recent death and children unable to help. Has rented a small flat, and hopes to support herself by taking one or two boarders. Voted £5 (in addition to £5 last month).
2. Daughter, aged 43, of late F.R.C.S. No income, and unable to support herself owing to constant ill-health. Relieved twelve times, £110. Voted £5 (in addition to £2 last month).
3. Daughter, aged 41, of late M.R.C.S. Has supported herself for many years as a shorthand typist, but lost her post a couple of years ago through changes in the firm, and is now dependent on occasional work, which she finds it very difficult to get. Voted £5.
4. Widow, aged 67, of L.F.P.S.Glasg. Only income £10 a year from another charity and health very indifferent. No children. Relieved eight times, £80. Voted £10.
5. Wife, aged 38, of M.R.C.S., L.R.C.P., who has been incapacitated for nearly seven years, but is now just able to take a light post. No income; three children, all dependent. Relieved twice, £15. Voted £10.
6. Widow, aged 68, of M.R.C.S. Since husband's death, more than twenty years ago, has supported herself by taking boarders, but finds increasing difficulties owing to deterioration of the neighbourhood. Relieved six times, £72. Voted £5.
7. Widow, aged 38, of M.R.C.S., L.R.C.P. No income; endeavours to support herself by nursing, but earnings are at present very small. Three children, the youngest only 1 year old. Relieved once, £10. Voted £10.
8. Widow, aged 66, of L.R.C.S. (Edin.). Only income a pension of £30 from another charity. Relieved twice, £24. Voted £6.
9. Widow, aged 54, of M.R.C.S. Has a small income, but asks for help towards expenses incurred by her daughter, who suffers from spinal caries. Relieved once, £5. Voted £5.
10. Daughter, aged 56, of late M.R.C.S. No income, and quite unable to support herself, owing to long-continued ill-health. Relieved six times, £60. Voted £10.
11. Widow, aged 54, of L.R.C.S. (Edin.). Quite unprovided for at husband's death, a year ago, and has only been able to obtain a post for a few months at a nominal salary. Relieved once, £10. Voted £10.

Contributions may be sent to the Honorary Treasurer, Dr. S. West, 15, Wimpole Street, W.

MOTOR CARS FOR MEDICAL MEN.

ELECTRIC LAMPS.

THE employment of electricity for the lamps of motor cars is becoming more general, probably in consequence of recent improvements in the generating apparatus. It is necessary to make some use of accumulators or else the lights would go out as soon as the car stopped, and this increased call upon the accumulators would constitute an inconvenience unless means were provided for charging them. For a long time past dynamos have been upon the market which were intended to charge the accumulator as the car ran; but it was necessary to provide some means of cutting the dynamo out of circuit when the car was running so slowly that the voltage of the dynamo fell below that of the accumulators, otherwise the accumulators would quickly discharge themselves through the dynamo. The means formerly provided were not very reliable, so that this accident sometimes happened, and quite unexpectedly the accumulators were found to be empty. This defect has now been overcome, and several makers provide a cut-out which is trustworthy, and also construct a much lighter and more compact dynamo. The various forms of apparatus differ in detail rather than in principle; for the most part the dynamo lights up the lamps direct when giving a sufficient output, at the same time that it is charging the accumulators, and it has been found possible so to wind the dynamos as to give a fairly constant output through a considerable range of speeds.

There is often a good deal of difficulty, in cars not originally constructed with a view to such an addition, in finding a place to put the dynamo, and still more in providing it with driving gear. We understand that the Argyll Company, foreseeing the considerable employment of electric lighting for cars, is now providing upon its chassis a place to put the dynamo and the means of driving it, so that the electrical plant can be installed at any time with a minimum of work and difficulty.

MOTOR TRICARS.

COUNTRY PRACTITIONER asks for advice as to the qualities which should be possessed by a motor tricar for rough roads in a hilly and very wet country, and for a comparison between the upkeep of such a tricar and a cob and a governess car.

THE ROYAL SOCIETY.

ANNIVERSARY CELEBRATIONS.

THE Royal Society, which is the oldest scientific body in this country, and one of the oldest in Europe, will celebrate the two hundred and fiftieth anniversary of its foundation on July 15th, 16th, 17th, and 18th. On the evening of the first day there will be a reception of delegates in the rooms of the Society at Burlington House. On July 16th there will be a short service at Westminster Abbey. In the afternoon a formal reception of the delegates will take place in the great library of the Society, and in the evening the delegates and other guests will be entertained at dinner by the Society at the Guildhall. On July 17th the Duke and Duchess of Northumberland will give a garden party at Syon House, and in the evening there will be a *conversazione* in the Society's rooms. On July 18th the President, Council, and delegates will be received by the King and Queen at Windsor Castle, where a garden party will be given. On the following day the delegates will be entertained by the Universities of Oxford and Cambridge.

First Beginnings.

As the Royal Society had its origin in a group of scientific men, several of whom were physicians and all of whom were interested in physic, a short history may well find place in a medical journal. It had its beginnings in meetings of "divers worthy persons inquisitive into natural philosophy and other parts of human learning and particularly of what has been called the *New Philosophy* or *Experimental Philosophy*." The suggestion that such meetings should be held for mathematical and physical discussions came from Theodore Haak, a German then resident in London, and they began to be held in 1645 or thereabouts. Among them were Dr. Jonathan Goddard, physician to Cromwell, Dr. Francis Glisson, and Dr. Ent. The meetings were first held in Dr. Goddard's house in Wood Street, because he kept an operator for grinding glasses for telescopes, sometimes at the Bull Head Tavern, Cheapside, sometimes in Gresham College. This is probably the germ of the "Invisible College" referred to by Robert Boyle in his correspondence in 1646 and 1647. Some of the leading members of this small body, having been appointed to posts in Oxford about 1649, formed an offshoot in that university. The Oxford Branch, which called itself the Philosophical Society, remained in constant correspondence with the parent body. Among the members of the Oxford Society were Sir William Petty, Thomas Willis, Jonathan Goddard, Thomas Millington, afterwards President of the College of Physicians, Richard Lower, Christopher Wren, who was an anatomist before he became an architect, the Hon. Robert Boyle, and Robert Hooke. The meetings were held in Wadham College, whose warden at that time was Wilkins, a man of the widest intellectual interests, or in Petty's lodgings. The scientific impulse made itself felt in Oxford for another generation, among its most conspicuous results being the anatomical and physiological researches of Willis, Lower, and Mayow. Then it died away in Oxford, but in London it went on to the formation of the Royal Society, which was founded after the Restoration. The scientific men who started the movement were nicknamed the "Virtuosi," and as one of the first effects of the Royal Society was to foster scepticism in regard to traditional doctrines of all kinds, its members were looked at askance by physicians of the old school. The Civil Wars and the Commonwealth had caused a great upheaval of thought and disregard of traditional opinion, and the laxity of professional restrictions degenerated into unbridled licence.[1] This laxity was fostered by Charles II, who himself took an interest in physical science, and was the actual founder of the Royal Society. He was the patron of several disreputable physicians, and his intellectual scepticism and sense of humour made him probably look upon the new Society with an interest not perhaps unmixed with good-natured contempt. The famous problem which he propounded to the "Virtuosi" as to the comparative weights of a dead and a living fish in water, may be taken as showing his attitude towards them, while pointing a moral to scientific inquirers for all time. Sprat, in his *History of the Royal Society*, well describes the atmosphere in which the Society was generated. "The University," he says, "had at that time many members of its own who had begun a free way of reasoning, and was also frequented by some gentlemen of philosophical minds whom the misfortunes of the kingdom and the security and ease of a retirement among gownsmen had drawn thither. Their first purpose was no more than only the satisfaction of breathing a freer air and of conversing in quiet with one another without being engaged in the passions and madness of that dismal age. . . . For such a candid and unimpassionate company as that was and for such a glorious season, what could have been a fitter subject to pitch upon than natural philosophy? To have been always tossing about some theology question would have been to have made that a private diversion, the success of which they themselves disliked in the public. To have been eternally musing on civil business and the distresses of the country was too melancholy a reflection; it was Nature alone which could pleasantly entertain them in that estate."

When Petty went to Ireland in 1652 as Physician-General to the army, the Society held its meetings at Wadham. In 1659 most of the "Virtuosi" migrated to London, where they were joined by several new associates, among them being Lord Brouncker and John Evelyn, the diarist. In the troubles that followed the resignation of Richard Cromwell, the nascent body was broken up, its place of meeting being converted into quarters for soldiers. After the Restoration the meetings were revived and the attendance increased.

Foundation of the Society.

On November 28th, 1660, a meeting was held at Gresham College, and those present decided to constitute themselves a society for the promotion of experimental philosophy in all its branches. The first journal book of the Society bears that date, and opens with a minute to the effect that "these persons following according to the usuall custom of most of them mett together at Gresham Colledge to heare Mr. Wren's lecture, namely, the Lord Brouncker, Mr. Boyle, Mr. Bruce, Sir Robert Moray, Sir Paul Neile, Dr. Wilkins, Dr. Goddard, Dr. Petty, Mr. Ball, Mr. Rooke, Mr. Wren, Mr. Hill. And after the lecture was ended, they did according to the usuall manner withdrawe for mutuall converse. Where amongst other matters that were discoursed of, something was offered about a designe of founding a Colledge for the promoting of physico-mathematicall experimentall learning." Dr. Wilkins was appointed Chairman, and a list of forty-one persons who were thought likely to join and fit to be members was drawn up. The design of the meeting was approved by the King. On December 10th another meeting was held, at which fifty-five was fixed as the number of the Society, persons of the degree of Baron, Fellows of the College of Physicians, and public professors of mathematics, physic, and natural philosophy of both universities being supernumerary. A president, a secretary, and a register were elected from among the members, and an amanuensis and operator was engaged to carry out the work of the Society. From the very beginning the Society attracted the attention of all the learned men in Europe. In 1661 the King offered to join it, and it received encouragement from many of the great nobles of the realm.

The Charter.

On July 15th, 1662, Charles II granted a Royal Charter which constituted the members a body corporate under the name of "Royal Society." Viscount Brouncker was elected the first president, Dr. Wilkins and Mr. Oldenbury the first secretaries, Mr. Ball treasurer, and 21 "of the most respectable members" the first Council, which met for the first time on May 13th, 1663. This Council, says Dr. Thomson,[2] was empowered by the Charter to nominate during a period of two months what persons they thought proper to be members of the Society. All elections subsequent to that period were to be conducted by the Society in a body, and for admission the votes of two-thirds of the members present were required.

[1] F. J. Payne, *Thomas Sydenham*, Masters of Medicine Series. London, MDCCCC.

[2] *History of the Royal Society, from its Institution to the End of the Eighteenth Century.* By Thomas Thomson, M.D., F.R.S.L. and E., etc. 1812. London: Printed for Robert Baldwin, 47, Paternoster Row.

The Charter, as Sir Benjamin Brodie pointed out in his first presidential address, was especially suited to the genius and character of the English people. He contrasts this with the fact that nearly forty years afterwards the Académie des Sciences—founded by Louis XIV—was placed wholly under the dominion of the Crown.

The Society first held its meetings at Gresham College. After the Great Fire of London the rooms that had been allotted to it were taken over by the City authorities. About the beginning of 1667 Henry Howard, afterwards Duke of Norfolk, invited it to hold its meetings in Arundel House. Moreover he presented to it the Arundel Library, purchased by his grandfather during an embassy to Vienna. It had formerly been part of the library of Mathew Corvinus, King of Hungary, erected by him at Buda in 1485. After his death in 1490, it came into hands of the famous Bilibaldus Pirckeimerus of Nuremberg, the friend of Albrecht Dürer. The Arundel manuscripts were for the most part sold to the British Museum in 1830, for some £3,500, and this money was used for the purchase of scientific books. The MSS. are kept separately in the Museum. In 1673 the Society was invited back to Gresham College by a deputation of the professors and the Mercers' Company. As its apparatus and collection were deposited there, and its operator, Hooke, lived in the building, the offer was accepted. Charles II made it a grant of Chelsea College, which it was intended to convert into a house suitable for the meetings of the Society. Lord Henry Howard had also given it a piece of ground near Arundel House, on which it was proposed to build premises by subscription. Both these projects fell through, and the Society bought a convenient house in Crane Court, Fleet Street, where it continued to hold its meetings until the Government in 1780 gave it apartments in Somerset House, to which its library and apparatus were transferred, and where it continued to meet till 1857, when it removed to Burlington House.

At the Restoration the time was ripe for the foundation of a Society "for improving natural knowledge."[3] Men's minds, so long distracted by political disturbances and civil broils, turned with relief to science, which was then seriously occupying the attention of men of intellect. It is noteworthy that from its earliest days the Society employed the experimental method. For a considerable time after its foundation, experiments were shown at every meeting. A salaried official was appointed whose express duty it was to contrive such experiments as were suitable for demonstration, and to have everything ready for their proper exhibition.

Philosophical Transactions.

In the beginning a principal part of the work of the Society consisted in the maintenance of correspondence with Continental philosophers. From this correspondence sprang the *Philosophical Transactions*. At first these were the work of the secretaries, but subsequently they were issued under the superintendence of a committee.

At its first foundation the Society devoted itself to the pursuit of any branch of knowledge; hence many communications were made on subjects not strictly belonging to the sciences to which it was intended that the attention of the Fellows should be more especially directed. Among their earlier publications there is found for a universal alphabet a dissertation on the Chinese language, a map of Peking with an exact account of the Imperial Palace, sent by a Jesuit missionary, an account of a journey to Aleppo and Tadmor, and of the discovery of tesselated pavements and other Roman antiquities. As Brodie says,[4] there was scarcely any one department of knowledge, whether it be philology, history, antiquities, medicine, geography, political economy, and even metaphysics, which is not to a greater or less extent represented in the *Philosophical Transactions*. But as knowledge grew and division of labour became imperative the Society had to confine itself to its more legitimate pursuit. In 1717 the foundation of the Society of Antiquaries took away one large class of communications. Seventy years later the Linnean Society was founded, and since then a number of others, devoted to various branches of science, have come into existence.

[3] The full title is the "Royal Society of London for Improving Natural Knowledge."

[4] Brodie: *Works*, Collected and Arranged by Charles Hardin. Vol. i. London, 1865.

The Society, like every other similar body, has had alternate periods of efficiency and slackness. Thomson points out how greatly the nature of the work done by the Society, and consequently the value of its *Transactions*, have been influenced by the President for the time being. He points to the Presidency of Martin Folkes, who held sway from 1744 to 1752, as a time when a much greater proportion of trivial papers will be found than at any other. During that period Sir John Hill published his *Review of the Work of the Royal Society of London*, in which he ridiculed the labours of the Society with a good deal of somewhat coarse humour. On the whole, the Society has been progressive and has continued to increase in reputation and in numbers.

Medical Founders.

As has been said, medicine had a considerable proportion of representatives among the founders of the Royal Society. Conspicuous among these was William Petty. He was born in 1623 at Rumsey, in Hampshire, and from a very early age showed a genius for mechanics. He was also an apt scholar in languages. When a boy he bound himself apprentice to a ship master, and discovered on his first and only voyage that he was short-sighted, a defect which the skipper treated by the application of a rope's end. He was ill-used by the sailors, and left with a broken leg on the French coast, near Caen. He interested the society of the town by giving an account of his sufferings in Latin. He completed his education at the Jesuits College at Caen. After serving a short time in the Royal Navy he returned to the Continent, where he spent three years, almost entirely in France and the Netherlands. He worked at the schools of Utrecht, Leyden, and Amsterdam, and at the School of Anatomy in Paris, where he made the acquaintance of Thomas Hobbes, with whom, according to Aubrey, he read Vesalius. Through Hobbes he made acquaintance with a number of people distinguished in science and literature. On his return to England he worked for a time at mechanical inventions, and in 1646 he became a member of the Society which had been started by Haak. In 1649 he followed the example of Wilkins and others and removed to Oxford, where he became a doctor in physic. He became a Fellow of Brasenose, according to Thomas Hearne, because "he had cut upp Dogges and taught anatomy in the war." He was appointed deputy to the University Professor of Anatomy, Dr. Clayton. In 1650 his name became known to the whole country by bringing back to life a woman who had been hanged. In 1652 he was appointed Physician-General to the army in Ireland. Petty at once set about reforming the medical service, but he was soon called to a larger sphere of activity in the administration of Ireland. Thenceforth the secluded path of medicine knew him no more. His versatile genius was applied to many problems, and he rose to a high position in the State. He was the first English writer on political economy. Petty, who was the ancestor of the Lansdowne family, died in 1687.[5]

Jonathan Goddard was born at Greenwich about 1617. He was educated at Oxford, but took his medical degrees at Cambridge. In 1646 he became a Fellow of the London College of Physicians. He gained the confidence of Cromwell, with whom he went campaigning in Ireland, and in Scotland as physician-in-chief to the army of the Parliament. In 1651 he was made Warden of Merton College, Oxford. In 1653 he was appointed Gresham Professor of Physic. At the Restoration he was evicted from his office at Oxford, and took up his abode at Gresham College, where he remained till his death in March, 1674–5. He used his laboratory to make experiments for the Royal Society. Antony à Wood says: "When any curious experiment was to be done they made him their drudge till they could obtain to the bottom of it." It may be mentioned that he also used his laboratory for the compounding of secret remedies, the chief of them being "Goddard's drops," or "guttae Anglicanae," the formula of which he is said to have sold to Charles II for £5,000. The medicine was a preparation of ammonia, with the addition of portions of the skull of a person who had been hanged, dried viper, and like substances. It is interesting to read that the compounder of this stuff was for some years a Censor of the College of Physicians. He is said to

[5] For a most interesting account of this extraordinary man see *The Life of Sir William Petty*, by Lord Edmond Fitzmaurice. London: John Murray. 1895.

have been the first Englishman who made telescopes, and he contributed a number of papers to the Royal Society.

Sir George Ent was born at Sandwich in 1604, and after graduating in Arts at Cambridge he spent five years in the study of medicine at Padua, where he took the M.D. degree in 1636. He was Gulstonian Lecturer to the College of Physicians, of which he was afterwards twice President. He was a great friend of William Harvey, who bequeathed him "all the presses and shelves he pleases to make use of, and £5 to buy him a ring to keep or wear in remembrance of me." Harvey was inclined to postpone publication of his work on the generation of animals for further experiments, but Ent persuaded him to entrust him with the manuscript, and with the great discoverer's permission published it, introducing the work with a dedication. Ent died in 1689.

Thomas Willis, the discoverer of diabetes mellitus and of the circle of blood vessels at the base of the brain which bears his name, was born in 1621, and educated at Oxford, where he graduated in arts in 1642, and in medicine in 1646, becoming Doctor in 1660. After the Restoration he was appointed Sedleian Professor of Natural Philosophy at Oxford. He moved from Oxford to London, and, according to Antony à Wood, "In a very short time he became so noted and so infinitely resorted to for his practice that never any physician went before him, or got more money yearly than he." He died in 1675.

Francis Glisson was born at Rampisham in Dorsetshire in 1597, and educated at Cambridge, where he took the degree of M.D. in 1634. In 1636 he was appointed Regius Professor of Physic, an office which he held till his death in 1677. He was, says Munk, one of that small but illustrious body who instituted a weekly meeting in London for the purpose of promoting inquiries into a natural and experimental philosophy, and which, after the Restoration, being augmented by the accession of several eminent persons, at length issued in the institution of the Royal Society. He was an anatomist, *omnium exactissimus*, according to Boerhaave. He described rickets and the capsule round the vena portae which bears his name. In modern times a remarkable tribute to the value of his scientific work was paid by Virchow.

Sir Thomas Millington was born at Newbury, Berkshire, in 1628. He was educated at Cambridge, but, after graduating in arts there, he migrated to Oxford, where he proceeded Doctor of Medicine in 1659. He was appointed Sedleian Professor of Natural Philosophy in 1675. He was President of the College of Physicians from 1696 till his death on January 5th, 1703-4. He was physician to King William and Queen Mary, and afterwards to Queen Anne. He was an able and very popular physician, and a benefactor to the College, of which he was President.

Christopher Merrett was born at Winchcombe, in Gloucestershire, in 1614. He was educated at Oxford, where he took the M.B. degree in 1636, and was created M.D. in 1642-3. He was an intimate friend of Harvey, who named him keeper of the library and museum which he gave to the College of Physicians. Merrett was involved in a quarrel relative to this appointment with the College, which finally expelled him from the Fellowship. He was one of the original Fellows of the Royal Society, and contributed a number of papers to the *Philosophical Transactions*. He died in 1695.

Richard Lower, though not one of the founders, was an early Fellow, having been elected in 1667. He was born at Tremere, near Bodmin, in Cornwall, about 1631, and was educated at Oxford. He assisted Thomas Willis in his dissections. He graduated Doctor of Medicine in 1665, practised with great success in London, and died on January 17th, 1690-91. In his treatise on the heart there is a chapter on transfusion of blood, which he had practised at Oxford in 1665, and afterwards on a lunatic before the Royal Society.

Medical Presidents.

The Royal Society has had a few medical presidents. That office was held by Sir Hans Sloane from 1727 till 1744, and by Sir John Pringle from 1772 till 1778. In 1858 Sir Benjamin Brodie was elected President, being the first surgeon to be chosen for the post. He held office for four years. There was some talk of making Brodie a peer, but in his first address to the Society he declared that he prized the honour of being its President above any peerage. Huxley, who was for seven years a surgeon in the navy, held the office from 1881 to 1885. Lord Lister was President from 1895 to 1900.

Medical Fellows.

There are, according to the latest list, eighty-three members of the medical profession who are Fellows of the Royal Society. The part doctors have played in its foundation and development is a thing of which the profession has good reason to be proud; nor do we think that the Royal Society can justly be ashamed of its association with medicine. Laplace opposed the admission of doctors to the Académie des Sciences on the ground that medicine was not a science. This attitude is taken up by certain Fellows at the present day, but the Society continues to welcome representatives of medicine, and it devotes a part of the funds with which it is entrusted for the promotion of research to medical science.

URIC-ACID-FREE DIET IN INOPERABLE CANCER.

WE have received the following report from Dr. A. Haig on cases sent to him in response to a request contained in a letter from him published in the JOURNAL in January, 1911. He asked that some inoperable cases of cancer might be sent to the hospitals to which he is attached with a view to testing the effect of one variety of the uric-acid-free diet on their disease. He asked that the cases sent should have a prospect of not less than six months of life.

REPORT.

Of the cases sent to me, practically none fulfilled even these minimum conditions. I took into the Metropolitan Hospital 3, and into the Royal Waterloo Hospital 6 cases, but none of these gave any real hope of success or were worth careful watching. I merely took them in to show them the diet, and let them go home and continue it there, in the hope that if, for any cause, the rate of progress of their disease slowed down the diet might get time to help them. I refused an equal or slightly larger number as being quite hopeless and having only a few weeks to live.

One of the cases in the Metropolitan that appeared most hopeful was a woman sent me by Mr. L. B. Rawling, of St. Bartholomew's, with an inoperable cancer of the right breast. She was supposed to have an expectation of life of several years, but our attention was soon directed to a pain in the left hip, and the rays showed that she had a secondary deposit there; so, like the others, she was merely shown the diet and allowed to go home.

Of the cases at the Waterloo Hospital, one advanced uterine case died after some two months, diet, of course, having no effect, though it certainly lowered blood pressure and helped to diminish pain. One refused to continue the treatment and went home, and the others went home to continue the diet, having learnt to take a certain quantity of nuts and fruit in addition to the beginner's diet. No supervision, however, is possible in such cases.

Two uterine cases, not entered in my notes, which had been carefully examined by my colleagues at the Royal Waterloo Hospital with a view to their treatment by diet, refused treatment, and went home saying that they would rather die with a full inside than an empty.

A month or two after my letter was published, Dr. T. J. Horder wrote[1] and offered to place some of the cases under his care at the Cancer Hospital at my disposal as regards their diet, and I accepted this offer.[2] On going into the details of the diet, however, Dr. Horder came to the conclusion that most of his male patients would leave the hospital rather than go on such a diet, and so it ended in his placing nine women under my care, and Dr. Burd of Upton-on-Severn sent me a case which I obtained leave to take in at the Cancer Hospital, and of each of these cases I will give a short note.

June 15th. Alice M. S., aged 36, carcinoma uteri and hemiplegia—a bedridden and hopeless case. Blood decimal 0.65. Died without getting on to diet.

June 15th. Mary A. S., aged 72, abdominal growth, nature uncertain. I did not treat her.

[1] BRITISH MEDICAL JOURNAL, April 1st, 1911.
[2] Ibid., April 8th, 1911.

June 15th. Agnes R., aged 64, tumour of right orbit. Given aspirin and other drugs to relieve the pain, which was severe, died in one or two months. Never got on correct diet.

June 15th. Minnie B., aged 45, malignant mediastinal glands and small pleural effusion—hopeless case. Went home July 6th.

June 15th. Alice G., aged 47, tumour of anterior thoracic wall. Got on to beginner's diet; was taken off this diet by Dr. Horder while I was away in September, I believe, because she was losing weight and the local condition was thought to be worse. She is still in the hospital and has had various treatments, but there has been no marked alteration on any diet.

June 15th. Alexandra H., aged 47, carcinoma mammae. Got on to beginner's diet for a month or two, but missed her tea greatly and suffered from colds and minor ailments. In October, owing to grumbling and loss of weight, she was given some boiled fowl once a day. Had serum injections, rays and other treatment. Is still in hospital—not much change; not on complete diet.

June 15th. Alice C., aged 49, advanced carcinoma of left breast, seven years' duration; much chronic arthritis, worse the last twelve months; father has chronic rheumatism; blood 0.75. August: Has got on to partial beginner's diet with some tea; she is now able to kneel in chapel for the first time for twenty years. October: Still tea once a day; growth no change; arthritis much better. December: Local condition shows decided improvement; has some fluid in the abdomen (? recurrence there); has never been on complete diet, but her uric acid intake has been greatly reduced; still some tea; is still in hospital. This is a very chronic case, and diet would have a chance here if done properly, but the patient's conduct when outside the hospital and her statement as to the food she takes cannot be depended upon.

July 24th. Amelia J., aged 17, carcinoma of rectum; colotomy has been performed. A hopeless case; went home July 31st.

November 13th. Isabel T., aged 57, malignant tumour of abdomen. Removal was attempted in May last, but found to be impossible. Has very marked rheumatoid joints. (A large percentage of the cases of cancer sent to me had well-marked signs of chronic arthritis.) This patient was too bad to have her diet altered in any way, and she died on December 31st.

October 9th. Mrs. B. (Dr. Burd's case), carcinoma of cervix, advanced, inoperable. Had a severe haemorrhage seven weeks ago. This patient got on to beginner's diet and took some nuts every morning, which helped to regulate her bowels and enabled her to get on with a diminished dose of cascara. She went on fairly for a time and gained a little weight even on this "low" diet, but she had much pain and took aspirin constantly for it. On January 31st, 1912, she had another severe haemorrhage followed by increasing debility and heart failure (partly due to the aspirin). She died in February, 1912, having had some meat since her last haemorrhage.

It will be seen that there is here not one single case which is in any way comparable to the private cases with which I wished to compare it. None of the cases in which their disease gave time for the diet to act ever really got on to it, and the cases in the Cancer Hospital all had some tea, fish, fowl, meat, at intervals; none of them ever got on to the complete nut and fruit diet given below. The private cases with which I wished to compare them got on a completely uric-acid-free diet in a few weeks, and have remained on it ever since. They had as few drugs as possible; often for long periods none.

I do not venture to say that my private cases were "*propter*," but they were certainly "*post*"—that is to say, the diet did no harm. Besides, similar cases have been reported by others, and all now acknowledge that some cases of undoubted carcinoma have got well. I merely suggest that diet may have had something to do with this result, and have been seeking to duplicate these experiences in hospital cases.

My chief reason for suspecting that they might be "*propter*" is the undoubted fact that those nations all over the world that take least uric acid or xanthin in their food have notoriously least gout and rheumatism and also least cancer, and that variations in the quantity of these poisons ingested account for the very marked differences between the largest and smallest cancer incidence in the United Kingdom.

I now see that I was looking for what I wanted in the wrong class; hospital patients are too ignorant and prejudiced to give this diet a fair trial in hospital, and they are too ignorant to provide what is required at home. If my cases are to be duplicated, it must be among the richer and better educated classes.

It takes at least from nine to twelve months to cure gout and rheumatism by diet, and obviously only slow growing cases of cancer, seen early, give any chance of success. In the case of Alice C., whose arthritis got better in two months, this result was only in part due to the diet changes and in part to the warm season and to the increasing fluid in her abdomen, which caused debility with increased alkalinity and solution of urates throughout the body. Nevertheless, if every private case could be put on a nut, fruit, and biscuit diet as soon as the nature of the disease was beyond doubt, we should soon see whether relapses on this diet were less frequent than among those left on ordinary diet in hospitals.

There is a further problem I should have liked to have worked out had it been possible—namely, whether cases of cancer will do better if treated like acute gout or rheumatism on a form of uric-acid-free diet which is rather low in protein and with the administration of solvents of uric acid (several of the above cases had aspirin); or if they will do better when treated like cases of chronic rheumatism or of phthisis on a very full protein diet, and with tonics and stimulants which act as retentives of uric acid. I have generally worked on the former hypothesis, but the experience of the Cancer Hospital, where there is evidently a strong belief in feeding up and gaining weight, seems to be in favour of the latter, and the good effects in some cases of radium and rays, which apparently act as tissue stimulants, is also perhaps in favour of it. On the other hand, cancer is notoriously a disease of the rich and highly fed, though this may be due to introduction of poisons, and quite apart from mere excess of protein, while tubercle flourishes under exactly the opposite conditions—poverty and starvation.[3]

I believe as strongly as ever that the diet which prevents cancer will in some cases be found to cure it, but cases similar to the above give practically no chance of demonstrating this.

The fruit, nut, and biscuit diet for an adult of 130 lb. would contain nuts (chiefly hazels, walnuts, pine kernels and Brazils) about 8 oz. (beginning with 1 oz. or 2 oz. and gradually increasing), fresh fruit almost *ad lib*, some dried fruit after soaking for about twenty-four hours in cold water. All these are uncooked, but if mixed with cream, honey, etc., many most delightful dishes can easily be made—for example, ground-up nuts, mashed fruit with cream sweetened with honey. The biscuits (now to be obtained from Messrs. Shearn of Tottenham Court Road) supply so much of the necessary protein as has not been got from the nuts and fruit, or rice pudding strengthened with dried milk can be substituted for the biscuit; thus we get—

Quantity.	Substance.	Protein in Grains.
8 oz.	Mixed nuts	544
24 oz.	Fresh fruit	192
4 oz.	Dried fruit	48
7 oz.	Special biscuits	476
		Total... 1,260 grains.

protein, a full diet for a patient of 130 lb. weight.

I use beginner's diet, in which there is much white of egg to replace fish, and curd, cheese, and dried milk to replace meat, as a stepping stone to the fruit, nut, and biscuit diet, and few of the above cases even got on to the beginner's diet completely.

I desire to tender to all those who sent me cases my best thanks, and especially to Dr. Horder for what he did at the Cancer Hospital, as it was obviously no fault of his that the cases placed at my disposal proved to be unsuitable. As, owing to the ignorance and prejudice of the patients, only such and similar cases appear to be available, I conclude that it is useless to attempt to treat a larger number.

My late experiences may, therefore, be said to leave the question where it was, but such indications as I have been able to observe convince me that it is a trail well worth following. My own intention is to pursue it indefatigably, but in the class which is by training more amenable to discipline, and therefore more obedient and intelligent.

NOTE BY DR. T. J. HORDER.

We have also received the following note from Dr. T. J. Horder (Physician to the Cancer Hospital, Fulham):

Dr. Haig's report, so far as it deals with the treatment of cases under my charge at the Cancer Hospital, calls for

[3] BRITISH MEDICAL JOURNAL, 1911, vol. ii, p. 1678.

a few remarks. I regarded it as a moral obligation to assist Dr. Haig in any possible way to test his thesis that a diet of fruit, nuts, and biscuits might cure cancer. The responsibility of supervising the treatment of a number of inoperable cases of malignant disease led me to offer certain cases to Dr. Haig, who treated them as nearly as possible upon the lines which he desired. The results were not, as Dr. Haig admits, favourable to the diet. The notes of the cases, as they stand in the report, call for brief comments:

CASE IV.

Alice G. I took this patient off the diet because she was losing weight rapidly and because the local condition was definitely worse. On a full diet, and with alternate x-ray and radium applications given by Dr. Knox, the improvement has been progressive and most satisfactory. A series of photographs shows the steady decrease in the growth, and the general condition of the patient is to-day, twelve months after the experiment with the diet was undertaken, excellent.

CASE VI.

Alice C. This patient had been in hospital for nearly two years before the diet was begun. She illustrates that form of multiple carcinomatosis in which masses of growth appear and disappear without specific treatment of any kind.

Dr. Haig's conclusion is that his thesis has not had a proper test, and I quite agree with him. But I do not think the difficulty has been that "hospital patients are too ignorant and prejudiced to give this diet a fair trial." The real difficulty is to persuade a patient who is losing flesh and becoming physically and mentally depressed that the diet responsible for this is curing the disease. I think it quite possible that Dr. Haig is right in supposing that some private patients will be found in whose minds this apparent (and, to many of us, real) discrepancy may be set aside by the power of their own or their physicians' convictions. It will be interesting to await the results of full trial of the diet in such patients. A still greater problem facing Dr. Haig is how to get his cases sufficiently early to test his diet properly. I think he is apt to forget that, our current views upon the radical treatment of cancer being what they are, the surgeon has prior claim in all cases amenable to excision. Dr. Haig, in common with all others who wish to test a non-surgical means of cure, is naturally anxious to begin early—"as soon as the nature of the disease is beyond doubt." But is Dr. Haig, with his present evidences of the value of his diet treatment, prepared to urge his conviction upon an early case of carcinoma, and to accept the responsibility of the choice between it and the benefits of surgery?

LITERARY NOTES.

IN the Literary Supplement of the *Times* of July 4th there is the interesting announcement that early in the autumn Messrs. Henry Sotheran will publish Sir Clements Markham's translation of the celebrated *Coloquious dos Simples e Drogas da India* (1563) of Garcia da Orto, who went out to India in 1534 as physician to his feudal lord, Dom Martin da Sousa, afterwards Governor of Goa, and remained there until his death in 1570. Travelling extensively along the western seaboard of India and in Ceylon, Garcia gathered botanical and pharmaceutical knowledge at first hand wherever he went. He formed a large "physic garden" in Goa, and another in Bombay, on the site now partly occupied by the Victoria Gardens. The *Colloquies* was in all probability the first European book printed in India; it contains the first descriptions of many Indian plants now in widespread medical use, and of their application to such diseases as cholera and dysentery. Clusius, in his *Aromatum Historia*, made a short, unsatisfactory *précis*, and the Italian and French translations are very inferior to the original. Sir Clements Markham has been engaged on his translation from the standard Portuguese edition, at Lisbon and Madrid, for the greater part of three years. On the proposal of Sir George Birdwood the publication is to be under the patronage of the Secretary of State for India. The work, it is added, has more than a scientific interest, for it is enlivened by entertaining anecdotes of the manners and customs of the people among whom Garcia da Orto carried on his researches.

Garden Cities and Town Planning for June contains, among other matter, an article of special interest on the Future of Rosyth, the new naval base on the Firth of Forth. Nine years ago, it is said, the Admiralty promised that the Garden Cities and Town Planning Association should be consulted when the time was ripe for action. Accordingly negotiations have continued from time to time with the idea of establishing a community on garden city lines on that portion of the land which would not be required for naval purposes. The question is how to provide housing accommodation for the workers at Rosyth who, with their families and consequent population, are estimated to number about 10,000 in two years. A town planning scheme would not include the provision of cottages, and the association has always held that the Government which passed the Act should themselves be model landlords and enable their land to be laid out under the provisions of the Act with the utmost regard to the wellbeing of the future dwellers. At Rosyth, says our contemporary, it has an opportunity of being model landlords and of setting the pace for town planning in Scotland.

Apart from actual physical deformity there is, perhaps, no more painful affliction to a sensitive person than stammering; and it is one, moreover, which if neglected in its early stages may very possibly prove a serious obstacle to the success of the child in after-life. Happily, however, even the most stubborn cases are not incurable, and in the June number of *The Child* Mr. J. Bretherton Hadley, himself an inveterate stammerer for many years, has given an interesting account of the methods whereby he has successfully treated himself and numerous fellow-sufferers. Except in cases of genuine organic defect, the whole crux of the matter seems to lie in the restoration of the patient's self-confidence, for he alone can can effect his own cure. "It is not merely a matter of vocal gymnastics, though that is, of course, very important," says Mr. Hadley, "but also of careful supervision and influence in daily domestic life, and of training the mind to think clearly and consecutively before speaking. In confirmed cases there is often a mental hesitancy, born of years of stammering, which requires very patient correction." Bodily health, too, plays a large part in assisting or retarding the cure; and for this reason Mr. Hadley advocates the removal, whilst under treatment, of the child stammerer from school, a step which need have no ill effects upon his education, since three months' tuition, under favourable conditions, should suffice for the permanent cure either of a child or an adult. Defects of speech, however, are not the only disabilities under which many of our school children labour. Dr. H. W. Harding, writing in the same number of *The Child*, points out the close relations which exist between the physique and the mental ability of growing children, and shows the folly and danger of working children beyond their strength. The same number of this excellent periodical also contains a short article by Fr. A. Butler Harris on the treatment of tuberculous children by tuberculin, and a charming account by Sir John Byers of his famous mother, Margaret Byers, foundress of the Victoria College for Women at Belfast.

Dr. William A. Storey (Belfast) writes:

With regret I acknowledge the discovery by Dr. Keenan of still more flies in the *Concise Oxford Dictionary* ointment. The pronunciation of "really" as *rerli* is certainly new to many of us on this side of the Channel. In this month's *Strand Magazine* there is reproduced from *Punch* the following skit entitled "Superior Education":

> Page Boy (to Jeames): Where shall I put this 'ere dish of 'ammonds?
>
> Jeames (with dignity): I'm surprised, Harthur, that at your hage you 'aven't learnt 'ow to pernounce the *har* in harmonds!

Had Harthur said to Jeames, "I really don't know where the dish of 'ammonds has gone," I presume Jeames would have had a convulsive seizure, as the dropping of the *har* twice in one sentence would have been too much for him to stand.

An English gentleman with artistic tastes spoke in most appreciative terms of a certain *drawring*. "Why don't you pronounce it 'drawing'?" asked a Belfast friend of mine. "I *did* say *drawring*," replied the former, with emphasis and assurance.

British Medical Journal.

SATURDAY, JULY 13TH, 1912.

THE ACT IN ACTION.

THE National Health Insurance Act comes into operation on Monday next, for the Government has not taken advantage of the proviso giving power to postpone its activities until some subsequent date not later than January 1st, 1913.

An insured person will not become entitled to medical benefit during the first six months after the commencement of the Act, nor to sickness or maternity benefit until twenty-six weeks have elapsed since his entry into insurance. Disablement benefit follows after twenty-six weeks of sickness benefit. An insured person will, however, become entitled to claim sanatorium benefit, which includes treatment in an institution, at a dispensary, or in his own home, on and after Monday next, as is pointed out below.

Few can now doubt, least of all the Insurance Commissioners, that it would have been wiser to postpone the commencement of the Act until the later date. The Insurance Commissioners have had a difficult task, but they cannot be said to have risen to its height. Last January, with statutory powers clearly defined in the Act, they were in a strong position which has now been undermined. They did not grip the essential matters of principle, and for some four months the only products of their labours with which the public became acquainted were some draft regulations of the most formal kind which an experienced conveyancing barrister could have drawn up in a couple of days, and the publication of lists of approved societies.

It is said, and it is easy to believe, that the accumulation of work now in hand is more than the staff, large as it has already become, can cope with, and it is certain that, in spite of the efforts of official lecturers and perhaps partly in consequence of those of an unofficial kind, and in spite of leaflets by the score, the willing part of the public is perplexed to know what it should do next Monday, and despairs of obtaining adequate information from the Customs and Excise officers, to whom, for the relief of Post Office officials, it is now invited to appeal. So long as uncertainty remains with regard to the way in which the promises as to efficient medical benefit are to be fulfilled, so long will the public mind remain disturbed, perplexed, and mildly contemptuous.

The alternatives between which the profession has to choose were stated with the utmost directness in the concluding paragraphs of the report published last week (SUPPLEMENT, page 23) for the consideration of the Divisions and of the Representative Meeting at Liverpool next week. No one, so far as we have observed, advocates the blind acceptance of the promises vaguely expressed in the statement which the Chancellor of the Exchequer authorized the Commissioners to make in their letter of June 26th (SUPPLEMENT, page 20). Mr. Ballance, of Norwich, who was chairman of the Representative Meeting in 1909-10, has been moved to issue to members of the Association a fly-leaf asking that at the meetings of Divisions now being held they should not bind the hands of Representatives. His main reason for giving this advice is that at the meeting in Liverpool the Representatives may have information not yet in the possession of members as to the intentions of the Government, as well as information as to the number of those who have signed the pledge, and of the amount of the Central Insurance Defence Fund of the Association. While not suggesting that the profession need flinch from a fight from one end of the country to the other, he expresses the opinion that it will be in a much better position to come to a final decision in September or October. "I only desire," he concludes, "to suggest that the Representatives be not compelled by their instructions to precipitate that fight at once, if, in the light of information which may be in their possession, and which has not previously been in the possession of the Divisions, they believe that the members generally should be given a further opportunity of considering the position before a final decision is made." Mr. Ballance, therefore, is in favour of the second alternative, which nearly approaches the course Mr. Lloyd George asks the Association to adopt.

The other alternative is at once to decline negotiations—a course which will force on the Government one or other of the courses which Mr. Lloyd George admits would not be satisfactory from the public point of view, and would, in his opinion, be less remunerative to the medical profession—namely, to leave the insured to obtain medical attendance, either under other arrangements made by Insurance Committees or by arrangements which they themselves will make by means of the money supplied from the insurance funds.

Since the letter of the Insurance Commissioners was written on June 26th, Mr. Lloyd George has himself addressed to "a medical correspondent" a letter dated July 9th, which has been circulated to the press by the Insurance Commissioners for England. In this new letter Mr. Lloyd George repeats the appeal to the British Medical Association contained in the letter of June 26th from the Commissioners, asking the forthcoming Representative Meeting to appoint a committee with authority to negotiate with him "in a practical spirit." With a want of appreciation of the actualities of the situation not usually numbered among the faults attributed to him by even the most severe of his critics, he expresses surprise "that there is an impression in some quarters that the Government are not desirous of coming to terms with the doctors." This, he says, is entirely wrong. "We have never wavered in our belief that the cordial co-operation of the medical profession is necessary in order that the best results may be obtained from the Insurance Act, and we are prepared to do all in our power to secure that co-operation." His point of view at present seems to be that though he admits, as we believe quite truly, that the country desires that the best medical treatment, preventive and curative, should be provided for the twelve or fourteen million workers who are at once to be insured, he does not dare to ask Parliament to vote the money necessary to pay reasonable remuneration to the medical profession. Mr. Lloyd George does himself less than justice; as a financier he has shown more courage in worse causes.

THE ASSOCIATION AND THE GOVERNMENT.

EFFORTS are being made in certain sections of the press to saddle on the medical profession the blame for the confusion and uncertainty which exists with regard to the administration of the Insurance scheme, but the examination of a few dates will show where the blame really lies.

The Special Representative Meeting of the British Medical Association stated, or rather restated, the minimum demands of the profession on February 22nd, and the State Sickness Insurance Committee then appointed, at its first meeting on February 28th, directed a letter to be addressed to the Joint Committee of Insurance Commissioners setting out in plain and unmistakable language what these minimum demands were. This letter was received by the Insurance Commissioners on February 29th, and the receipt of a formal acknowledgement was reported to the Committee at its meeting on March 7th. At its meeting on April 11th attention was drawn to a reply by Mr. Masterman, Chairman of the Joint Committee of Commissioners in the House of Commons, to the effect that he did not know that any reply would be sent to the British Medical Association except an acknowledgement, because members of the Association were to be appointed on the Advisory Committee. The Committee then (April 12th) wrote to the Commissioners asking when a detailed answer to the letter of February 29th might be expected. To that there was received on April 15th a reply from the Secretary of the Joint Committee to the effect that the representations of the Association would be carefully considered in connexion with the preparation of the Regulations for the administration of medical benefit, adding words to the same effect as Mr. Masterman's answer in the House of Commons—namely, that the Joint Committee hoped at an early date to obtain in the preparation of these regulations the advice and assistance of the Advisory Committee. Eleven days later (April 26th) the State Sickness Insurance Committee again wrote to the Joint Committee of Commissioners pointing out that while it recognized that those members of the State Sickness Insurance Committee who were also members of the Advisory Committee would be able to give advice and assistance in the preparation of the Regulations, the full Committee was the only body with authority to convey to the Commissioners and to press on their acceptance the terms desired by the medical profession, and that therefore it might become the duty of the Committee to seek a direct conference with the Commissioners in the hope that such arrangements might be made as would be satisfactory and fair to those who would be asked to undertake medical attendance and treatment under the Act. No reply to this communication appears to have been received, but on May 16th the attention of the Committee was drawn to a notification by the Commissioners to the effect that they had appointed a subcommittee to investigate and collect information as to the conditions of remuneration prevailing in general medical practice throughout the United Kingdom, and asking for information or representations from medical or other societies or persons interested. The Committee thereupon (May 16th) wrote to the Joint Committee of Insurance Commissioners, pointing out the fallacy which would arise if such information were regarded as a guide to the remuneration which would be acceptable to the profession in connexion with the Act.

The persistence of the Committee was at length rewarded by a guarded suggestion, received on May 21st from the Joint Committee of Commissioners, to the effect that they hoped to have the benefit of a conference with representatives of the British Medical Association, and two days later, on May 23rd, Sir Robert Morant and Mr. Whitaker, the Chairman and Deputy Chairman of the Commissioners in England, attended a meeting of the State Sickness Insurance Committee, when it appeared that their object in seeking an interview was to induce the Association to sanction the acceptance by medical practitioners of seats on the Provisional Insurance Committees for counties and county boroughs, which the near approach of the fatal day, July 15th, had rendered imperative. The Chairman (Mr. Verrall) pointed out to Sir Robert Morant and his colleague that the Committee were acting under instructions to the effect that no member of the Association should take any office or work under the National Insurance Act, other than that of the Advisory Committee, until such time as the minimum demands of the profession were conceded in the Regulations or in an amending Act. At this interview the first intimation was given, in the statement by Mr. Whitaker, of the proposal to examine the books of medical men in some selected towns, afterwards more fully explained by the Chancellor of the Exchequer in an interview. This interview was not achieved until the State Sickness Insurance Committee, at its meeting on May 30th, had adopted a resolution declaring that, after serious consideration, it had come to the conclusion that the time had arrived when the Insurance Commissioners should be asked to state (1) whether they could or whether they would not formulate regulations to satisfy the demands of the profession forwarded to them by the Committee some three months earlier, and (2) whether, if they could, they were willing to formulate such regulations, or, if they could not, what steps they proposed to take. In the covering letter transmitting the resolution to the Commissioners, the Committee indicated that if it would be any assistance to the Commissioners the Committee was prepared to place itself at the disposal of the Commissioners. This at last brought matters to a point, and the Committee as a deputation had two meetings with the Insurance Commissioners, with Mr. Lloyd George in the chair, on June 7th and June 12th. The only immediate outcome of this deputation was the receipt of a memorandum defining the conditions upon which the investigation into the amount of work and remuneration in the respective towns would be made. Finally, on June 26th, the Joint Committee answered the letter it had received on February 29th, and the Council on July 3rd could but endorse the opinion of the State Sickness Insurance Committee that, taking the document as a whole, no material concession had been made by the Chancellor of the Exchequer since February last to the demands put forward by the Association.

SECRET REMEDIES.

MONTAIGNE summed up his criticism of life in the phrase *L'homme se pipe*—man gulls himself. It is this inherent tendency in man's nature that makes him so ready a prey to impostors and swindlers of all kinds. St. Augustine's statement, *Quod vult, non quod est, credit qui cupit errare*, is true of most men; especially is it true in the matter of health, for to few of us is given the fortitude to look the truth about disease in ourselves, or in those we love, straight in the face. We prefer to believe that which we wish to be, not that which is. Man is also too apt to delude himself in another way. Even the strongest has his moments of depression when curious sensations, to which in his ordinary state he would pay no heed, make themselves felt, as in the watches of the night strange sounds are heard in a house. To these weaknesses the vendor of secret remedies appeals. Such is the credulity of mankind that a nostrum vendor has only to cry his wares with sufficiently "flamboyant mendacity," to

use a phrase of Mr. Justice Eve, to secure purchasers.

It is estimated that two millions and a half sterling is spent yearly on such stuff by the inhabitants of the United Kingdom. What value is received in return for this vast expenditure? A good deal has been done to enlighten the public mind on that point by the publication of *Secret Remedies*, of which about 150,000 copies have been sold, and there is every reason to anticipate that the continuation of that work, which has just been issued under the title, *More Secret Remedies*,[1] will meet with a like success. The book gives the reader the impression of hearing quacks in a market place bawling against each other. To the cynic it is amusing reading; it makes him recall the saying of Galen that the people ask for remedies, and reflect how fully that wish is gratified. To the lover of his kind, however, it is sad to see the credulity of the ignorant imposed upon on so vast a scale. It is not only the ignorant, however, who buy nostrums which they see advertised. There are many who ought to know better, but whose love of mystery and self-conceit leads them to put faith in anything that bears the stamp of unorthodoxy. The state of mind of the public as regards secret remedies is aptly illustrated by a story which has been told before in this Journal, but which, carrying as it does an eternal moral, may well be told again. A vendor of quack medicines was doing a roaring trade at a fair in a Paris suburb, when the police, with a zeal which does not too commonly characterize the agents of the law, proposed to arrest him on a charge of unqualified practice. He took them to the rear of his booth, and there exhibited before their astonished eyes an authentic degree granted by the Medical Faculty of Paris. As they were retiring in some confusion, he begged them not to "expose" him, for he said if the people knew that he was a real doctor his trade would be ruined.

We cannot go over the list of remedies in detail, and, indeed, as the analyses have already appeared in the Journal, this would be a twice-told tale. Attention may, however, be called not only to the extravagance of the claims, but to the ingenuity with which everything that can possibly influence the ignorant mind is brought to bear to increase the effect. There are testimonials from "M.D.'s" whose names do not appear in the *Medical Register*. Deceptive combinations of letters and vague titles such as "specialist" are used to suggest legitimate qualifications, and distorted or misapplied quotations from medical journals. Unscrupulous use is made of the names of famous physicians to make it appear that they discovered the remedy, or clergymen are made to seem as if they had blessed the wonder-working medicine. The remedy is declared to be the outcome of years of research in the laboratory, or to be compounded of herbs used by savage tribes, or gathered from the slopes of the Himalayas. In other cases some particular class is directly addressed. The vanity of women is appealed to by a woman who professes to have a cure for obesity of which we are told that "nobody but a woman could have discovered it, and it is offered to women only." A large class of men is enticed by offers of cures for "lost manhood." If the quacks are to be believed, there are simple solutions of the problems of a falling or a rising birth-rate. If but a small part of the claims made on behalf of secret remedies of one kind or another were justified, we should have the new heaven and the new earth promised us by the Chancellor of the Exchequer—without the medical "benefits" of his Insurance Act.

In the chapter on unqualified practice through the post an account is given of the way in which the snare is set—not in vain—in the sight of the poor birds whom it is meant to catch. We believe a brisk business is done in the sale of names and addresses of confiding people on the books of one quack firm to another. These persons are bombarded with letters and lists of questions, called "Symptom Forms," in which a great show is made of exhaustive inquiry with a suggestion that the medicines will be selected or modified according to the nature of the disease by an "expert." More and more urgent letters are sent when the object of attack is irresponsive, and probably in this way many at last are netted who at first avoided the lure. It is easy to excite alarm by a mere recital of symptoms. This brings suggestion into play, and there is hardly a condition which the patient cannot discover in himself by much thinking. This is one of the vilest features of the trade. It makes nervous people the victims of quackery, and too often they go the rounds from one system of treatment to another, hope springing eternal in their breasts with the delivery of each new bottle of medicine or with the passage from one system to another—hope doomed, in the vast majority of cases, to disappointment.

It would be folly to deny that quack medicines ever do good. It would be strange indeed if they did not sometimes, as for the most part they are made of materials in common use in medical practice. But it must never be forgotten that, like the razors, sung by Peter Pindar, they are made to *sell*. A testimonial from a well-known person is very useful, and sometimes these are given in all simplicity. Many testimonials, however, are not genuine. Some years ago a member of the French Legislature had the curiosity to try to trace the people whose names were appended to advertised testimonials. In about a dozen cases selected for the purpose the attempt was a failure. The similarity of certain testimonials suggests that they are passed on from one firm to another, and used in a slightly altered form. There is not only the danger of receiving medicines inappropriate and possibly injurious to a particular case, but the evil of establishing the quack remedy habit which leads to certain depletion of the purse and very probable impairment of health. In any case it fosters a state of mind which is destructive of happiness, as well as of efficiency. Even the most highly educated person, ignorant of the laws of physiology, is liable to fall a prey to the wiles of the quack. It is with the wish to show people what they are really buying that these analyses are published. From this book they will see the outrageous disproportion between the cost of the stuff sold and the price at which it is retailed.

The chapter on the advertising of proprietary medicines is of special interest, as it shows the extent to which the lay press is made the vehicle for puffing of nostrums. Selection is carefully exercised in the choice of papers, high-class dailies and monthly reviews showing few or none, while others which make their appeal to more ignorant classes devote a large part of their advertising space to them. Certain religious papers are remarkable for the number of quack advertisements which they contain. In connexion with this subject we may quote a significant passage from Sir William Osler, who says: "I suppose as a body clergymen are better educated than

[1] *More Secret Remedies: What they Cost and What they Contain. Based on Analyses made for the British Medical Association.* London: The British Medical Association. 1912. (Cr. 8vo, pp 282.) To be obtained through any bookseller, price 1s., or from the offices of the Association, price 1s. 3d. post free

any other, yet they are notorious supporters of all the nostrums and humbuggery with which the daily and religious papers abound; and I find that the further they have wandered from the decrees of the Council of Trent the more apt are they to be steeped in thaumaturgic and Galenical superstition."

It is, we fear, useless to expect any help from the lay press in general in the war against quackery. The newspapers can exercise only the most cursory supervision, if any, over the advertisements of nostrums. Moreover, the control of large groups of newspapers and other periodicals by a few persons creates an almost insuperable obstacle to effective legislation. The effect of the suppression of genuine public opinion in the political sphere caused by this concentration of ownership, was pointed out some years ago by Mr. Winston Churchill. It is easy to foresee how it would operate in organizing resistance to any proposal to restrain the baleful activity of the advertiser of secret remedies. There seems little hope of any real reform; a trade which brings a revenue of between £300,000 and £400,000 is too valuable to the Government to be sacrificed to what many public men would think a Quixotic principle. They would say with Vespasian of the money got from his unsavoury tax, *Non olet*.

In conclusion, we may be allowed once more to recommend *More Secret Remedies* to the attention of the public as well as the profession. Although dealing with a subject surrounded by innumerable difficulties, scarcely any serious attack has been made on the accuracy of the analyses. A still more striking testimony to the value of the book is the discreet silence about it maintained by that large part of the press which flourishes on advertisements of secret remedies.

SANATORIUM BENEFIT NEXT WEEK.

SANATORIUM benefit comes into force on Monday next, July 15th. The State Sickness Insurance Committee, at its meeting on July 11th, recorded its opinion that the terms of Minute 78 of the Special Representative Meeting of February last, which stated that no member of the medical profession should take any office or work under the National Insurance Act, other than that of the Advisory Committee, until such time as the minimum demands of the profession were conceded in the Regulations or an amending Act, debarred members of the profession from making any kind of attendance upon any person under the Act in connexion with sanatorium benefit. At the same time the Committee placed on record its opinion that there was abundant evidence that the question of Minute 78, in its application to sanatorium benefit, must come up for consideration at the Annual Representative Meeting. The regulations for sanatorium benefit have not yet been issued, even in draft. It may be possible to excuse this delay on the ground that this benefit is not wholly under the control of the Insurance Commissioners, and it is true that the councils of counties and county boroughs must provide the institution, though on the Insurance Committee falls the duty of selecting the patient. This division of authority is witnessed in the circular letter of the Local Government Board transmitting to county councils a rather long-winded memorandum by the Insurance Commissioners. (See SUPPLEMENT, p. 87.) The Local Government Board in the middle of May sent a circular letter to county councils calling attention to the duties which would shortly be imposed upon them in respect of the treatment of tuberculosis, and some councils have already received reports from their medical officers containing schemes for provisional or permanent organizations or both. The Local Government Board and the Insurance Commissioners alike recognize that the arrangements immediately to be made must be of a provisional nature. This would in any case have been inevitable, as county councils do not possess an adequate amount of sanatorium accommodation, nor, except in a few instances, tuberculosis dispensaries. But if the Commissioners had not wasted so much of the time between February 29th and June 26th, the dates on which they received the letter from the British Medical Association and replied to it, and had come to terms with the profession, the arrangements could easily have been very much more complete. As it is, county councils are advised to do the best they can, and Insurance Committees are told to instruct an insured person who believes himself to be suffering from tuberculosis to go through the following procedure: He is first to apply to the clerk or acting clerk of the Insurance Committee; the clerk is to furnish the applicant with a blank form of medical report, and advise him to take it to his ordinary medical attendant, or any other medical practitioner he may prefer; the applicant is to ask the practitioner to examine him, to fill up the form, and to consent to accept from the Insurance Committee a fee of 5s., which the Commissioners regard "as suitable for this purpose." The report is then to be forwarded to the medical officer of health of the council of the county or county borough, and it is assumed that the council will have consented to appoint this officer to act temporarily as the expert adviser of the Provisional Insurance Committee in dealing with individual applications for sanatorium benefit. The medical officer of health will then be expected to advise the Committee as to the form of treatment most suitable for the case, and the Committee will select those applicants judged most to stand in need of sanatorium benefit, and decide what kind of treatment under the provisions of the Act relating to that form of benefit should be provided. In order to complete, as far as possible, these provisional arrangements, the Insurance Committee is to draw up a scheme of home treatment for the approval of the Local Government Board, and is told that it may make arrangements for treatment by private practitioners in various ways, though the only way specified is that the patient should be authorized to obtain from his own medical attendant such treatment as may have been sanctioned in his case at the cost of the funds of the Insurance Committee. It is greatly to be regretted that the Insurance Commissioners, by their dilatoriness, have brought the matter to this pass, because the interim report of the Departmental Committee contained many excellent features which appealed to the profession, both to those engaged in special practice and to general practitioners, who would have been ready, we have no doubt, to accept the co-operation of the tuberculosis officer as a consultant, and to serve on the medical staff of a dispensary as suggested by the Departmental Committee.

1911-1912.

THE assertion so often and so positively made by medical speakers and writers in our columns, and in those of our contemporaries, that nothing has been gained through the criticisms directed by the British Medical Association against the Insurance Scheme of the Government, makes it worth while to bring together the two following quotations touching the question of remuneration. The one is from the speech made by the Chancellor of the Exchequer in introducing the bill into the House of Commons on May 4th, 1911; the other from a letter addressed by him to "a medical correspondent" and circulated to the press

by the Insurance Commissioners on Tuesday evening, July 9th, 1912:

May 4th, 1911.

I come now to a rather delicate task, because the doctors and the friendly societies are at variance on the subject. The doctors say that they are underpaid. Well, we all say we are underpaid. On the other hand, the friendly societies say, "No, it is just your greed." That is really the quarrel that is going on at the present time, and it has become very acute. In some districts—they are rural districts—the doctor is paid half a crown per head per annum for members of friendly societies. In other districts the amount runs up to 6s. per head per annum, but on the average the doctoring for members of friendly societies is done at 4s. per head per annum. . . . I am on the whole inclined to agree that the doctors have got a case for increased payment, not as much as they ask, something far short of that, but at the same time something very substantial. . . . I suggest that there should be a separation of drugs from the doctor, whose business should be confined to prescribing. . . . In addition to that, I think there ought to be provision for an improvement in the standard of payment to the doctors. Sometimes, no doubt, they are quite adequately paid, but sometimes they certainly are not, and I think financial provision ought to be made in the scheme for raising the level to 4s.

July 9th, 1912.

As regards the subject of remuneration, I have said—and I repeat—that the Government are prepared, as part of a general settlement, to recommend Parliament to increase the amount available for remuneration of those doctors who take part in the formation of panels. It is true that I have had to make clear that I did not expect to be able to meet the demands put forward by the British Medical Association for 8s. 6d. per head exclusive of drugs and of a long list of extras. I feel sure, however, that this demand was put forward without fully realizing what it meant. In private practice, doctors know the amount they receive from those they actually attend, and they find it difficult to realize what would be the effect on their income if they were paid a fixed sum per head per annum in respect of a large section of the population, whether they actually attended them or not. I hope that the inquiry which Sir William Plender is now carrying out will serve to remove this cause of misunderstanding once and for all. . . . I still believe that the most satisfactory way of working the medical service under existing conditions will be by the system of free choice of doctor by patients, with the various safeguards for the profession which were inserted in the Act at the request of the British Medical Association.

With regard to the sentence quoted from the letter of July 9th with reference to the inquiry into the amount of work and remuneration in the six selected towns, we may recall that in the letter addressed to the honorary secretaries of the Divisions within the areas of which the selected towns were included, the State Sickness Insurance Committee stated that it had informed the Chancellor that the inquiry was not of its seeking; that the information obtained as the result of the inquiry would probably be inadequate, and might be misleading; and that the demands of the profession as regards remuneration could not in any way be affected by the results of the inquiry. The report of Sir William Plender, the actuary selected to make the investigation, was submitted to the Chancellor of the Exchequer and to the British Medical Association on Thursday afternoon, July 11th, as we go to press. It has been inserted in the SUPPLEMENT (p. 89).

FRIENDLY SOCIETIES AND THE MEDICAL PROFESSION.

A COURSE once or twice suggested in these columns was adopted with much success at Bromwich on June 21st, an address explanatory of the attitude of the medical profession towards the Insurance Act being delivered by Dr. Cameron Kidd before an audience of members of friendly societies. From the tone of questions subsequently asked, from editorial comments in Worcestershire papers, and from the fact that more than one of them has reproduced the address verbatim, it may be concluded that the address made an excellent impression. After setting forth the medical objections to the Act discussed so often in these columns, he devoted himself to disabusing the minds of his audience of two misconceptions—a belief that the demand for 8s. 6d. a head represents an attempt on the part of the medical profession to obtain twice as much pay as that with which it was formerly contented, and that the notice given of termination of contracts with friendly societies is an attack upon them. In the first connexion, he showed that whatever reasons medical men may ever have had for being content to accept contract patients at 4s. a head had ceased to be operative for many years, and that long before the Insurance Bill was conceived the British Medical Association had been busy working out a scheme to take the place of existing contract practice. That scheme, elaboration of which was practically complete in 1906, included, apart from other matters, a payment of 2d. a week a head, or approximately 8s. 6d. a year. Hence the demand of the medical profession that it should receive this sum under the National Insurance Act represented no new claim. Further work on the scheme in question had been postponed until it was seen what the Government's Insurance Bill proposed, and as its proposal in regard to medical attendance proved one which would work harm not only to the medical profession, but in the long run equal harm to the public itself, the medical profession intended to have nothing to do with it unless the demands it had made were granted. If an agreement between the Government and the profession could not be reached before January 15th, 1913, when the medical benefit came into operation, the profession would again take up the scheme mentioned. In regard to termination of contracts, this was not a voluntary act on the part of the doctors concerned, nor representative of any hostility on the part of the medical profession towards friendly societies. It was a step forced upon the medical profession by the Government itself, which had threatened that if medical men would not accept 6s. a year from it, it would place that sum in the hands of the societies and leave them to deal with the medical profession. The only reply to such a threat was for the medical profession to safeguard itself by cutting its connexion with friendly societies before the date mentioned, and as six months' notice was necessary notice had to be given on July 15th. The delivery of this address was arranged at a meeting of medical men in practice in the locality, and many of them were present to assist in answering the questions raised on its conclusion. We notice as a point of importance that Dr. Kidd was selected to deliver the address, not merely because he has been for a very long time in practice in the district, but also on account of its being well known that he is a strong adherent of the present Government and an advocate of the principle of compulsory insurance.

ST. BARTHOLOMEW'S FIFTY YEARS SINCE.

THE July number of the *St. Bartholomew's Hospital Journal* contains Sir William Church's Midsummer Address to the Abernethian Society, which is a retrospect of St. Bartholomew's and medicine during the last fifty years. He says he is not old enough to remember cattle being brought into Smithfield, but when he joined the hospital the whole of the place now occupied by the railway and the meat markets was "a dreary expanse of neglected ground adorned with the decaying remains of the old cattle and sheep pens." Snow Hill still retained the features described by Dickens, and Farringdon Street was being bored through the slums. He became a dresser under Sir William Lawrence; in those days students paid twenty-five guineas for the privilege of dressing—a perquisite which the surgeons were not very willing to give up. Lawrence, though he would make incisions 6 in. or 9 in. long, without an anaesthetic, for diffuse cellulitis, would not be present at an ovariotomy, thinking the risk to the patient to be too great. All operations, except urgent ones, were done on Saturday afternoons, in a single theatre in which the surgeons took their turn in order of seniority. Sir William Church was afterwards clerk under Sir George Burrows and Dr. Kirkes. All sorts of cases, including typhus and other

acute fevers, were admitted into the general wards. There were no special departments, except that for diseases of women. Although the ophthalmoscope had been introduced, its value in medical diagnosis was not recognized. The laryngoscope was not in use. Electricity was not employed either for diagnosis or for treatment. Sir William Church never saw the thermometer used for clinical purposes in his student days. After he had finished his clerking he became an apprentice to the apothecary of the hospital, Mr. Wood. There were no house-physicians then, and all the medical cases were under the care of the apothecary. Sir William Church's time was taken up with dispensing the hospital formulae to patients. In addition to his other duties Mr. Wood had to see the medical casualties each morning. His methods were rough and ready. According to the time of year he would say: "All who have diarrhœa stand up"; or "All who have a cough stand up." He would then make a rapid tour of inspection among the patients; his eye and judgement were so acute that Sir William Church doubts whether he often passed over a serious case. An amusing sketch is given of some of the old apothecaries of the hospital. The first mention of such a functionary occurs in the account in the journal for 1572, when it was decided that "the said William Weston (the Apothecary) shall have for his wages every yere, so long as he serves this house with poticary ware from May next, XVI^{li}, XIII^{s}, and IIIj^{d}, to be paid to him quarterly." In 1614 the apothecary had rooms assigned to him in the hospital and the 'Apothecaries' shop was instituted. Francis Bernard, who was elected physician to the hospital in 1678, had previously been Apothecary for eighteen years; he was a very learned man, and possessed the largest collection of medical books that had ever been made in England; in addition to the classical tongues he was well acquainted with French, Spanish, and Italian. Thomas Wheeler, who was appointed in 1806 and held office till 1821, was an excellent botanist, and also very learned. Sir Robert Christison says of him that he continued to wear the clothes of the apothecary of the last century, and was chiefly remarkable for his rare familiarity with the works of Hippocrates. "In our occasional controversial conversations he floored Oxon., Cantab., and Edin. alike by quoting long paragraphs in the Greek original from the father of physic, from whom and his disciple we were glad to make our escape by prompt assent." Wheeler was very eccentric, and on one occasion was mistaken for an escaped lunatic. Sir William Church goes on to refer to the change in the appearance of the wards that has taken place under the influence of the nursing staff, and he contrasts the modern nurse with the old type.

ECONOMY IN THE OPERATING THEATRE.

THE contrast between the elaborate arrangements for operations and the large amount of money spent on hospital operating theatres on the one hand, and the conditions under which operations have often to be done for private patients, both in nursing homes and in private houses on the other, must often have struck the hospital surgeon, and probably the public also. It is notorious that the working man, as Mr. Hamilton Whiteford[1] points out in the preface to his little work on the operating theatre in private practice, stands a better chance of aseptic healing if he goes to a modern hospital than a patient belonging to the middle classes who is operated upon in the bedroom of a private house, but many nursing homes, in the larger cities at least, have well-equipped operating theatres. Mr. Whiteford gives an account of a small operating theatre built last year for himself. There are full details as to materials and arrangements and expense. Glass, on account of its liability to fracture, and brass surfaces, because of the waste of labour necessary to keep them polished, were almost entirely dispensed with. In their stead were used iron, aluminium, and painted and plated brass. We are reminded in reading this of an American railroad manager whose first work after taking over the new lines and engines and plant was to paint over all the brightly polished handles and knobs, and thereby save a considerable sum in labour. In Mr. Whiteford's scheme the fancy things are done away with. The floors, instead of terrazzo, are made of cement, which is four times cheaper; it may be added that terrazzo frequently becomes roughened and little bits of marble are chipped out of the floor, whereas good cement, as a rule, becomes smoother the more it is used, and, if carefully laid on a proper foundation, has no greater tendency to fissure. Mr. Whiteford strongly advocates heating by electricity; instead of hot-water troughs under the operating table, an electrical apparatus has been devised which will maintain the heat much more steadily for any length of time. Economy is observed also in the use of solutions. Iodine is the only antiseptic employed. Antiseptic lotions of all kinds are abolished in favour of saline solution. The theory of aseptic surgery is simple, but, as it depends on many people and many factors, its practical application is difficult.

[1] *An Operating Theatre in Private Practice.* By C. Hamilton Whiteford, M.R.C.S., L.R.C.P. London: Harrison and Sons. 1912. (Cr. 8vo, pp. 76. 3s. 6d. net.)

GIFT TO THE WELSH MEDICAL SCHOOL.

IN commemoration of the visit of the King and Queen to King Edward VII Hospital, Cardiff, better known as the Cardiff Infirmary, an anonymous donor has presented 10,000 guineas for the erection of a new physiological block of buildings for the Medical Faculty of the University College of South Wales and Monmouthshire. The total sum required to complete the whole scheme of buildings for the medical school is £50,000, and the donor expresses the hope that other men with means at their disposal will follow his lead. He goes on to say that he has been moved to make the gift in order that the Welsh Medical School might be enabled to take its proper status in research work relating to cancer, tuberculosis, and other serious maladies, and that thus Cardiff may take its proper position and rank with the other great towns in the kingdom in this beneficent branch of scientific investigation. Further, he had been influenced by the feeling that through the completion of the medical school the medical and surgical work at King Edward VII Hospital would be made more valuable to the sufferers who are treated there and in other hospitals of the Principality.

INTERNATIONAL EUGENICS CONGRESS.

THE first International Eugenics Congress will be held at the University of London from the 24th to the 30th of July, under the presidency of Major Leonard Darwin. The meetings will be held in the hall of the University, Imperial Institute Road, South Kensington, S.W. In the list of Vice-Presidents we note the names of Sir Clifford Allbutt, Sir Thomas Barlow, Sir William Church, Sir Rickman J. Godlee, Dr. A. Marie, Sir Henry Morris, and Sir William Osler. A circular has been sent out to all members of eugenic and heredity societies in Europe and America and to many other persons likely to be interested in the Congress. In the meetings and discussions the English, French, German, and Italian languages are to be on an equal footing. An inaugural banquet will take place at the Hotel Cecil on Wednesday, July 24th, at 7 p.m., at which all the officials of the Congress and readers of papers will be the guests of the Entertainments Committee. Members of the Congress can obtain tickets at 7s. 6d. each from the Honorary Secretary, Entertainments Committee, 30, York Terrace, Harley Street, W. Speeches of welcome will be made by the President, the Lord Mayor of London, the Right Hon. A. J. Balfour, and others. The banquet will be followed by a reception, to which all members and associates of the Congress will be invited. The work of the Congress will be distributed among sections as follows:

Biology and eugenics, practical eugenics, education and eugenics; sociology and eugenics, and medical eugenics. Papers ranging over the whole subject will be read and discussed in these sections. There will be an exhibition in connexion with the Congress which will include (1) charts, pedigrees, photographs, and specimens, illustrative of heredity, especially in man; (2) relics of Charles Darwin, Sir Francis Galton, and Gregor Mendel; (3) portraits of notable workers. Many interesting exhibits have been received from America, France, Germany, and all parts of the United Kingdom. Professor von Gruber has sent over from the International Race Hygiene Congress, held in Dresden in 1911, a collection of exhibits representative of German work, and the American Eugenic Record Office, as well as the State Epileptic Colony, New Jersey, are sending exhibits.

AN OLD REMEDY REVIVED.

THE therapeutic virtues of garlic have been at intervals extolled by many writers. Sydenham used it in cases of small-pox, and ancient records tell of its employment in a whole series of complaints. In America it still holds a place for the relief of certain pulmonary diseases, and from Ireland we can now record a strong testimonial[1] in favour of its influence upon tuberculous disease, both pulmonary and general. Dr. William C. Minchin, of Dublin, stirred by an account of a remarkable recovery of a tuberculous bone case in which the cure appeared to be effected by a mixture of soot, butter, and garlic, set himself to study the results of treatment by the sulphide of allyl in tuberculous joint cases. His success in some of the cases quoted appears to have been remarkable, and photographs of patients before and after treatment are given. It has long been known that salts derived from the *Allium sativum* have bactericidal power, but the intense aversion which so many people have to the all-pervading smell of garlic has no doubt rendered their use unpopular. Such cases as those recorded by Dr. Minchin may fairly be claimed as proof that in certain individuals the drug may practically annihilate the activity of tubercle, but he has found that in others, where a strong antipathy to garlic exists, its administration in any form has failed to give relief. The widely extended use of garlic among the lower orders in Italy may perhaps be traced to a therapeutic origin.

LONDON SCHOOL OF TROPICAL MEDICINE.

AT the request of the Right Hon. L. Harcourt, Secretary of State for the Colonies, a committee has been formed to raise funds for the extension and development of the London School of Tropical Medicine. An appeal with that object has been issued by Mr. Austen Chamberlain. In order to provide a modest but adequate endowment fund, to make necessary additions to the laboratories and buildings for the accommodation of the growing number of students, to provide for the active prosecution of research, and to establish a small nursing home for civilians who cannot afford to procure for themselves the special medical and surgical treatment and nursing required in these very special branches of disease, a sum of £100,000 is now required, and it is to raise this sum that the present appeal is made. A meeting of the committee will be held at the Foreign Office on Wednesday, July 17th, at 4 o'clock, with the Right Hon. Austen Chamberlain, M.P., in the chair. We hope in a later issue to deal more fully with this matter, which is of the highest importance from a scientific as well as an imperial point of view. In the meantime we can only express an earnest hope that the appeal will meet with an adequate response.

[1] *The Treatment, Prevention, and Cure of Tuberculosis and Lupus with Allyl Sulphide.* By William C. Minchin, M.D., late Medical Officer to the Kells Union Hospital and Fever Hospital. London: Baillière, Tindall and Cox. 1912. (Cr. 8vo, pp. 96; 4 plates, 1 figure. 3s. 6d. net.)

CREMATION.

CREMATION, as is well known, is far commoner in Japan than in Europe or America. In 1905 the number of bodies disposed of by this method was 348,349; in 1906, 327,517; in 1907, 361,962; in 1908, 377,902; in 1909, 402,329, giving an average for these five years of 363,492. The average number of burials during the same period was 717,927, nearly double that of the cremations. Cremation is cheap in Japan, the cost being from somewhat less than 6s. to 32s. 6d. Mr. Dakers Cameron, of Montreal, having read the article entitled "Progress of Cremation," which appeared in the JOURNAL of April 27th, has been good enough to obtain for us the figures relating to the crematorium in Mount Royal Cemetery, Montreal. This is, as far as our correspondent knows, the only crematorium in Canada. It was opened in 1902, and up to the end of 1911, the number of bodies cremated there was 401. The figures for the several years are as follows: 1902, 3; 1903, 6; 1904, 16; 1905, 19; 1906, 19; 1907, 27; 1908, 52; 1909, 88; 1910, 97; 1911, 74.

PROFESSOR KOCHER, who recently completed the fortieth year of his occupancy of the Chair of Surgery in the University of Bern, has given £8,000 to the Medical Faculty of the University for purposes of medical research.

Medical Notes in Parliament.

[FROM OUR LOBBY CORRESPONDENT.]

National Insurance Act.

Medical Benefit.

SIR PHILIP MAGNUS asked the Chancellor of the Exchequer whether, having regard to the nearness of the date when the National Insurance Act came into operation, he could state what progress had been made in the arrangements for securing the co-operation of members of the medical profession in the working of the Act; and, in the event of the Commissioners failing to meet the requirements of the doctors, what steps he proposed to take to provide medical benefit for insured persons, who would have commenced paying on July 15th for medical attendance under those clauses of Part I of the Act relating to the cure of sickness. Mr. Masterman said he was unable at present to add anything to previous statements made on the subject. The Act promised to all insured persons from January 15th free medical attendance or a monetary equivalent. This promise had been set out in the insurance leaflets, and if the Commissioners found that the medical attendance in any district could not be provided, the alternative which was provided in the Act would be given to all insured persons. The amount in lieu of medical benefit, calculated according to actuarial advice on which the Act was based, was 6s., but he would not commit himself to that amount at present.

In reply to Sir Philip Magnus as to 6s. being sufficient to insure against sickness, Mr. Masterman said it was one and a half times as much as 5,000,000 of the working classes were now paying for medical benefit.

Captain Clive asked whether the right hon. gentleman had completed arrangements to provide medical benefits (doctor and medicine) before issuing the National Health leaflet, in which a guarantee was given that, except in special circumstances, a doctor and medicine would be provided. Mr. Masterman said the National Health leaflet specifically declared that one of the benefits of the Act would consist of "doctor and medicine, or, in special circumstances, money payments instead." The Commissioners would have no difficulty in fulfilling this promise. A strike of the medical profession would be a special circumstance.

Sir Philip Magnus asked the Secretary to the Treasury what steps he proposed to take in the event of the Insurance Commissioners failing to make any agreement with the doctors, and consequently determining to pay each

insured person a fixed sum per annum, say 6s., in lieu of free medical attendance, to secure to the insured contributor efficient medical attendance during sickness after the year's grant of 6s. had been expended on doctor's visits and in payment for drugs. Mr. Masterman said that refusal of the medical profession to make a collective agreement with the Insurance Commissioners would not necessarily entail the consequence specified in the question. Other courses were possible under the Act. In any event the sum of 6s. per head per annum would enable the insured persons to remunerate the doctors who attended them at a considerably higher rate for the same services than they had given them in the past. But it would be premature to discuss various possible alternative schemes to the panel system which was contemplated in the Act.

Asked whether he thought 6s. was the equivalent of free medical attendance and medicine, Mr. Masterman said "the poor insured person in all the great friendly societies has obtained free medical attendance and medicine for an average of something like 4s. per head."

Asked by Lord Helmsley if the 6s. would be given to each person whether he required medical attendance or not, Mr. Masterman replied that he would not commit himself to the sum of 6s. There were other alternatives. There was a possibility, if medical benefits were suspended, that a certain sum would be given to every person whether he required medical attendance or not.

Asked by Mr. Grant whether the Chancellor of the Exchequer clearly asserted from his place in the House that without the co-operation of the medical profession the Act would be ineffective, Mr. Masterman said he did not remember his right hon. friend using those words. Of course, the Government was making every effort to obtain the co-operation of the medical profession on terms compatible with the amount of money which it could ask the House to vote for such a purpose.

Asked by Mr. Banes if the 6s. would be given back to the insured person or put to his credit, Mr. Masterman said that either of those courses was possible. In the last resort, if no other course were possible, 6s., or some sum to which he did not commit himself, would be given to every insured person, which was 9d. for every 4d. he had paid in for medical benefit.

On July 10th Mr. William Peel (Taunton) asked the Secretary to the Treasury whether the insured persons to whom the 6s. must be given in lieu of medical attendance, in the event of the Government being unable to come to an agreement with the doctors, (1) would be expected to form benefit societies in order to secure medical attendance; (2) would they be given the 6s. if they had not consulted a doctor during the year; (3) would they be allowed to spend the 6s. on other matters than medical attendance; and (4) if 1s. 6d. out of the 6s. would be considered to have been given to the insured persons in lieu of free drugs. Mr. Masterman said that if the local Insurance Committee in any district found that adequate medical attendance could not be given by the doctors who offered to serve on a general panel a variety of alternative systems of providing medical benefit might be adopted. If such alternatives proved impracticable or undesirable medical benefit might be suspended. In the event of suspension it would be perfectly open to the insured persons, who would receive monetary equivalent, to make such arrangements for medical attendance and medicine as they had been making for many years past, and they would receive for such arrangements one and a half times the money which they had hitherto usually paid for them.

Mr. William Peel asked for an answer to the last two points of the question (3) and (4). Mr. Masterman said that those and other alternatives were possible. There might be an arrangement come to by which money was handed over to the societies for medical benefit. Up to now every one of the working classes had been able to get medical attendance and drugs for something like 4s. He would now get the same for 2s. 8d. unless the medical payment was suspended.

Mr. William Peel: In order to obtain these benefits, will these people be compelled to form societies on the old lines?—Mr. Masterman: This is a possible alternative. There are dozens of alternatives whereby they will be able to obtain medical attendance under these circumstances.

The Marquess of Tullibardine (Perthshire, W.): Under the Act is not the medical benefit guaranteed? Mr. Masterman: No. Medical benefit or money payment.

Sir P. Magnus (London University) asked what steps the Government proposed to take to exclude those persons possessing an income exceeding £160 a year from free medical treatment who, under the National Insurance Act, are entitled to that benefit, having regard to the statement of the Commissioners in their letter of June 26th that the Government recognize that this is a special case for consideration. Mr. Masterman replied that the Government had undertaken to consider any suggestions put before it in reference to this matter. No such suggestions had as yet been made. It would therefore be premature to make any statement.

Maternity Benefit.

Mr. Rendall asked whether a domestic servant passed child-bearing age could exchange this benefit for an increased sickness, invalidity, or pension benefit. Mr. Masterman replied that there was no power in the Act to substitute other benefits for maternity benefit.

District Nursing.

Mr. Aubrey Herbert asked if district nursing as such would come under the heading of sickness benefit, medical benefit, or whether it would be considered as an additional benefit. Mr. Masterman replied that the Commissioners had not yet prescribed on which specific benefit or benefits any grants made by approved societies or Insurance Committees should be treated as having been expended.

As to the conditions of the grants, Mr. Masterman said that under Section 21 it was lawful for an approved society or Insurance Committee to grant subscriptions or donations in support of district nurses. It was not possible at present to make any statement as to what use they would make of this power.

As to the exemption of these associations, Mr. Masterman said that district nursing associations could not be relieved of their obligations under the Act as employers on the ground that they were in receipt of such grants as those mentioned.

Feeble-minded Rural Workers.

Mr. Bridgeman asked if the Insurance Commissioners had power to make regulations for the exemption from the provisions of the National Insurance Act of rural workers who were feeble-minded, epileptic, infirm, or otherwise only partially capable of earning a livelihood; and, if so, whether they proposed to exercise those powers. Mr. Masterman replied that the Commissioners had no general powers of the kind suggested in the first part of the question. Apart from the special provisions of the Act, such as those relating to outworkers or inmates of institutions, persons who were actually employed must be insured under the ordinary conditions, and the Commissioners had no power to exempt them by regulation. The second part of the question did not therefore arise.

Sanatorium Benefits.

Mr. Godfrey Locker-Lampson asked who would certify that an insured person was suffering from tuberculosis and was a proper case for sanatorium benefit in the event of no arrangement being come to with the medical profession by July 15th; and whether the insured person would have to pay for this certificate himself in addition to his contribution for sanatorium benefit. Mr. Masterman said that the arrangements would depend on local circumstances; in some cases the Insurance Committee would probably arrange that the medical officers of the local authority would certify, and in other cases that a report from the private medical attendant of the patient would be accepted, the Insurance Committee having expert advice on the matter. It was contemplated that the cost of such certificates should be defrayed by the Insurance Committee, where these arrangements were adopted.

Sanatoriums (Ireland).

In reply to Sir John Lonsdale, the Chief Secretary for Ireland said that the Women's National Health Association, acting on behalf of certain county councils, had purchased the Peamount estate, near Lucan, for the purpose of sanatoriums for consumptives, and that a grant for the purchase had been authorized by the Local Government Board and approved by the Treasury. The Local Government Board understood that the Women's National Health

Association was acting in co-operation with the councils of the counties of Leitrim, Meath, Westmeath, and Donegal. The arrangements between the association and county councils in regard to contributions were not yet definitely settled in each case, but whatever conditions were imposed as regards the grants given to the Women's National Health Association and the counties working in co-operation with it would also apply to other counties and voluntary associations working on their behalf. Reports had been made by eminent experts testifying to the good quality of the land and the suitability of the estate for sanatorium purposes, and an independent valuation did not appear to be necessary. The estate had been conveyed to independent trustees. No portion of the money would be used for any other purpose than those for which it was authorized to be used under the Act in question. None would be used by the association for its own purposes.

Women's National Health Association (Ireland).

In reply to Sir John Lonsdale, Mr. Masterman said that upon the recommendation of the Local Government Board for Ireland, the Treasury, after consultation with the Irish Insurance Commission, had approved the grant of a sum not exceeding £25,000 out of moneys available for sanatorium purposes under the Finance Act, 1911, to the Women's National Health Association of Ireland. There were no statutory conditions as to the audit of expenditure out of these grants, which were, in terms of the Finance Act and the National Insurance Act, grants in aid of the institutions to which they were made, but the grants would be made subject to such conditions as would secure their being expended for the purposes for which they were intended. The grant now in question would be issued in instalments, the issue of each instalment after the first being made conditional upon the Local Government Board being satisfied as to the proper application of the preceding instalment, and arrangements would be made for securing that the institutions and services provided out of the grants should be made permanently available for the treatment of tuberculosis. The money would be exclusively devoted to the giving of sanatorium benefit, which would include dispensaries as well as sanatoriums. No part would be devoted to anything outside the sanatorium benefits of the Act.

Asylum Staff.

Colonel Rawson asked whether members of the staff of the Surrey County Asylum, who were already providing for old age by paying at the rate of 3 per cent. on their salary and emoluments under the Superannuation Act of 1909, were obliged to come in under the National Insurance Act, whereas elementary teachers were exempt under the Superannuation Act of 1898. Mr. Masterman said that in such a case it was open to the employing authority to apply to the Commissioners for a certificate of exemption from the compulsory provisions of the Act, on the ground that the terms of employment secured to the employees provision in respect of sickness and disablement on the whole not less favourable than the corresponding benefits under the Act. Unless a certificate was applied for and granted, the employee would come under the general provisions of the Act.

Remuneration during Sickness.

In reply to Mr. Rowntree, the Secretary to the Treasury said that when an employer undertook liability to pay full remuneration to an employee during the first six weeks of illness, the employer would be required to give notice to the Insurance Commissioners on a prescribed form in accordance with regulations which would be published in a few days. Those, however, who employed servants to whom pensions or other substituted benefits under Section 13 might be more suitable than payments during sickness should remember that the payment of lower contributions under the provisions of Section 47 would necessarily penalize their servants as regards such substituted benefits.

Sick Pay.

Mr. Godfrey Locker-Lampson asked whether any sick pay was guaranteed to those persons between 65 and 70 who would have the full contribution conducted from their wages under the National Insurance Act; and, if so, how much. Mr. Masterman said that under Section 49 (3) of the Act, the character of the benefits provided for such persons was left within the discretion of societies. For their guidance the Commissioners had issued a circular, No. A.S. 29, with two alternative schemes of benefits which would be actuarially sound, one giving sick benefits and the other small annual allowances by way of addition to pensions or other allowances the insured person might be receiving from his society or elsewhere. Under the former of these the rate of sick pay would be 6s. a week for thirteen weeks, and 5s. for a further thirteen weeks. There was no statutory guarantee that any one was to be received into any society.

Small-pox Hospitals.—In reply to Sir Francis Lowe, the President of the Local Government Board said that small-pox hospitals were maintained by local authorities, and he did not think it could be said that they were never likely to be again required for the purpose for which they were provided. In recent years such outbreaks as had occurred had been brought under control very promptly, and small-pox hospitals had formed an indispensable part of the machinery required for this purpose. He might say that he had encouraged local authorities to use their small-pox hospitals, subject to suitable safeguards, for the treatment of pulmonary tuberculosis and other purposes, when they were not required for small-pox and when they were suitable.

Dental Treatment in Schools.—In reply to Mr. Watt, the President of the Board of Education said that no grant had hitherto been made in aid of dental treatment in schools, but, under regulations already issued, a grant would be made this year towards the expenditure of local education authorities on medical treatment, which would include dental treatment.

Forcible Feeding.—In reply to Mr. Keir Hardie, Mr. McKenna said the compulsory feeding of prisoners was in each prison carried out by the medical officers, who were always fully qualified medical men. In one or two cases they had had the assistance of medical men not in the prison service, who were also fully qualified. He placed entire confidence in the discretion of these gentlemen and their ability to perform the duties required of them.

Medical Attendance on Indian Women.—In reply to Mr. Joynson-Hicks, the Under Secretary of State for India (Mr. Montagu) said that the number of women in India objecting to treatment by male doctors in public hospitals was no doubt large, but he knew of no figures showing the actual number. Much had already been done to provide female medical aid in women's hospitals for such women by the local authorities in co-operation with the Countess of Dufferin's fund. In 1908 there were in India, including native States, fifty-two lady doctors of the first grade, eighty-seven female assistant surgeons with the Indian qualifications, and 529 female hospital assistants. Later figures were not available.

Deaths from Plague in India.—Last week Mr. Montagu informed Mr. Armitage that the total recorded deaths from plague in India (including native States) from 1901 to to 1911 (both inclusive) was, in round numbers, 7¼ millions.

Registration of Deaths.—A bill has been presented "to amend the law relating to the registration of deaths and to burials" by Mr. George Greenwood, supported by Mr. Atherley-Jones, Sir John Rolleston, Dr. Addison, Mr. Leif Jones, Mr. Gordon Harvey, Mr. Rowlands, Mr. Cecil Harmsworth, Mr. Ponsonby, Mr. Radford, Mr. Manfield, and Mr. Bentham.

Inebriates Bill.—The Inebriates Bill was read a second time on July 9th, and referred to a committee.

Ireland.

[FROM OUR SPECIAL CORRESPONDENTS.]

TRINITY COLLEGE MEDICAL SCHOOL.

Bicentenary Celebration.

ON Thursday, June 4th, Trinity College, Dublin, began the celebration of the two hundredth anniversary of the foundation of its medical school. The proceedings opened with the reception of the guests and delegates by the Chancellor of the University and the Provost of Trinity College. The reception took place in the Library, which is the college building nearest to the site of the old Anatomy House in which the Medical School was opened 200 years ago. This site was, in the terms of the order setting it apart for the building of a laboratory and anatomical theatre, "at the south-east corner of Ye Physic Garden." The building erected on the site contained rooms for a chemical laboratory, a lecture room, and probably a dissecting room, as well as an upstairs apartment, which was used as a museum.

The Chancellor of the University (Viscount Iveagh, K.P.) and the Provost (Dr. Anthony Traill) entered the library a few minutes before 3 o'clock, preceded by the mace. The guests and delegates were announced individually, and welcomed by the Chancellor and Provost. After the formal reception there was an adjournment to the adjoining Fellows' Garden, where were already assembled many of the delegates' private hosts and a large number of medical graduates of the university, a proportion of whom were visiting Dublin in order to be present at the festival.

Royal College of Surgeons: Honorary Fellowships.

At a meeting of the Royal College of Surgeons on the same day the Honorary Fellowship was conferred on Mr. I. H. Cameron, Professor of Surgery in the University of Toronto; Mr. Robert Jones, of Liverpool; Sir William Macewen, D.Sc., LL.D., F.R.S., Professor of Surgery in Glasgow University; and Sir Henry Morris, Bart.

In the evening the medical graduates of the School of Physic entertained the delegates at dinner in the Round Room of the Mansion House, kindly lent by the Lord Mayor. Mr. Robert H. Woods, F.R.C.S.I., presided, and His Excellency the Lord Lieutenant was seated on his right. There were over 400 present at the dinner. While the guests of the School of Medicine were entertained at the banquet, the Ladies' Committee held a reception at Trinity Hall for the lady guests.

On Friday morning the Provost unveiled a memorial stone to John Stearne, a Senior Fellow of Trinity College and founder of the Royal College of Physicians. This stone is now placed in the portico of the chapel of Trinity College, and is the original which in 1669 was placed over Stearne's tomb at the north side of the old Trinity College Chapel. The delegates then repaired to the Examination Hall, in which Dr. Mahaffy, Principal Historian of Trinity College, delivered an oration on Stearne. Addresses were then presented by delegates from the various universities and other learned bodies, including Kyoto (Japan), Tomsk, St. Petersburg, Moscow, Helsingsfors, Vienna, Cairo, Geneva, Ghent, Groningen, Upsala, Stockholm, Christiania, Copenhagen, Bordeaux, Paris, Ann Arbor University of Michigan, Harvard, Pennsylvania, Montreal, Winnipeg, Ontario, Toronto, Punjab, Melbourne, Sydney, and nearly all the universities and colleges of England, Scotland, and Ireland.

The following address was presented by Dr. J. A. Macdonald, Chairman of the Council, on behalf of the British Medical Association:

CANCELLARIO, PRAEPOSITO,
SOCIIS,
UNIVERSITATIS DUBLINENSIS
STUDIOSISSIMAE VETUSTISSIMAE FACUNDISSIMAE
MEDICORUM BRITANNICORUM SODALITAS
IN OMNIBUS TOTIUS IMPERII PARTIBUS
CONSTITUTA
S.P.D.

LIBENTER, viri doctissimi, litteras istas e Collegio vestro SS. Trinitatis missas accepimus, necnon summa erga vos voluntate, quod tot annis rite peractis in artibus Aesculapii docendis Scholam illam praeclaram fortunatis auspiciis conditam tanta prudentia perfectam celebrare velitis, Universitati Dublinensi pro temporis opportunitate gratulamur. Quibus celebrationibus admodum delectati vobis maximas gratias agimus qui in hisce studiis commemorandis nos etiam feriarum tam felicium participes esse jubeatis, eoque libentius, quoniam nostra quidem Sodalitas quinque et viginti milibus medicorum in omnibus partibus Britannici Imperii adscriptis nonnullos artibus medicinalibus apud domum antiquam ad ripas Liffae peritiores factos sodalicios communibus conjunctos studiis contineat, partem laetitiae vestrae habere videmur. Tanto desiderio tanta in vos benevolentia vehementer commoti virum bonum doctissimum, Concilio nostro praepositum, in omnibus rebus hujus Sodalitatis diu diligentissime versatum, qui ipse praesens ad nostram amicitiam praestandam feriis vestris intersit, Jacobum Alexandrum Macdonald, M.D., M.Ch., LL.D., legatum destinavimus.

Floreat in aeternum Universitas Dublinensis penitus dilecta honoribus novis novisque inceptis exornata, cujus apud aulas Schola Medicinae bonis viris adjuvantibus ducentos annos humano generi profuit, necnon postea in scientia medicinali augenda et in mortalibus aegris curandis pristina fama conservata obtineat incrementum.

ROBERT SAUNDBY, *Praeses.*
EDWIN RAYNER, *Aerario Praefectus.*
GUY ELLISTON, *Procurator.*

D. Londinii,
Ante diem duodecimum Kal. Jul. MDCCCCXII A.D.

As the delegates advanced the National Anthem of each country was played on the organ. Telegrams and letters of congratulation were then read from several other universities whose delegates were prevented from attending. In the afternoon a garden party was given by Lord Iveagh in his beautiful grounds near St. Stephen's Green, and in the evening a performance of *She Stoops to Conquer* was given by the Dublin University Dramatic Society. Before the rise of the curtain Dr. Tyrrell, S.F.T.C.D., read as a prologue an ode written for the occasion by Dr. Oliver St. John Gogarty, F.R.C.S.I.

On Saturday morning a bronze medallion of the late Professor Daniel John Cunningham, who was for twenty years Professor of Anatomy in the medical school of the college, was unveiled in the anatomy room by Dr. James Little, Regius Professor. A graceful tribute was paid by him to the work done by Professor Cunningham for the college as well as for the medical school.

Royal College of Physicians.

After this a procession was formed to the Royal College of Physicians. It was headed by the members of the Dublin University Officers' Training Corps, three hundred strong, then came the Fellows of the Royal College of Physicians, Honorary Fellows of the Royal College of Physicians and Royal Academy of Medicine, students and student delegates, graduates of Trinity College, Dublin, guests and delegates, and the staff of the Trinity College, Dublin. The rear was composed of the medical unit of the Officers' Training Corps. The procession marched to the Royal College of Physicians, where the delegates and guests were received by Sir Hawtrey Benson, President, and the Fellows of the College. The Honorary Fellowship was then conferred on Sir Thomas Barlow, Dr. John Mitchell Bruce, Dr. George Alexander Gibson, Sir David McVail, Dr. Robert Saundby, and Dr. William Sydney Thayer (Harvard). Dr. Norman Moore and Dr. James Mackenzie, on whom the Fellowship was also conferred, were unable to be present. Sir Charles B. Ball, Bart., as President, then conferred the Honorary Fellowship of the Royal Academy of Medicine on some of the distinguished visitors.

Honorary Degrees.

In the afternoon honorary degrees of LL.D., M.D., and Sc.D. were conferred in the Examination Hall of Trinity College as follows:

LL.D.

Sir Thomas Boor Crosby, Lord Mayor of London.
Right. Hon. Lorcan G. Sherlock, Lord Mayor of Dublin.
Sir J. Hawtrey Benson, President, Royal College of Physicians of Ireland.
Richard Dancer Purefoy, President of the Royal College of Surgeons in Ireland.
Denis Joseph Coffey, President, University College, Dublin.
William Peterson, Principal and Vice-Chancellor, McGill University, Montreal.

M.D.

Sir Thomas Barlow, Bart., President, Royal College of Physicians, London.
Sir John Halliday Croom, Professor of Midwifery, University of Edinburgh.
Sir Rickman J. Godlee, Bart., President of the Royal College of Surgeons of England.
Sir Christopher Nixon, Bart., Vice-Chancellor, National University of Ireland.

Sc.D.

Professor J. George Adami, Professor of Pathology and Bacteriology, McGill University, Montreal.
Professor Raphael Blanchard, Professor of Natural History and Parasitology, University of Paris.
Professor Frederick Orpen Bower, Professor of Botany, University of Glasgow.
Professor Percy Faraday Frankland, Professor of Chemistry, University of Birmingham.
Professor Ernst Fuchs, Professor of Ophthalmology, University of Vienna.
Professor Karl Ritter von Goebel, Professor of Botany, University of Munich.
Professor A. P. Goubaroff, Professor of Gynaecology, University of Moscow.
Professor Allvar Gullstrand, Professor of Ophthalmology, University of Upsala.
Professor Henri Hartmann, Professor of Operative Surgery, University of Paris.
Professor John Newport Langley, Fellow of Trinity College, and Professor of Physiology, University of Cambridge.
Sir William Macewen, Regius Professor of Surgery, Glasgow.
Professor Franklin P. Mall, Professor of Anatomy, Johns Hopkins University, Baltimore.
Charles James Martin, Director Lister Institute of Preventive Medicine.
Professor Alexander Maximow, Professor of Histology and Embryology, Imperial Military Academy of Medicine, St. Petersburg.
Professor Hans H. Meyer, Professor of Pharmacology, University of Vienna.
Count Carl Axel Hampus Mörner, Vice-President, Royal Swedish Academy of Sciences, Stockholm, and Rector of the Caroline Medico-Chirurgical Institute, Stockholm.
Professor Robert Muir, Professor of Pathology, University of Glasgow.
Sir William Osler, Bart., Regius Professor of Medicine, Oxford.
Professor Ivan Petrovic Pavlov, Director of the Physiological Department, Imperial Institute for Experimental Medicine, St. Petersburg.
Professor Hermann Sahli, Professor of Therapeutics, University of Bern.
Professor Ernest Henry Starling, Professor of Physiology, University College, London.
Professor Edgar Fahs Smith, Provost of the University of Pennsylvania.
Professor George Dancer Thane, Professor of Anatomy, University College, London.
Professor Robert Tigerstedt, Professor of Physiology, University of Helsingfors.
Professor J. Whitridge-Williams, Professor of Obstetrics, Johns Hopkins University, Baltimore.

After this a garden party was held in the Fellows' Garden. In the evening a banquet was held in Trinity College, to which the guests, delegates, and their hosts were invited. On Sunday many of the visitors were motored by their hosts to Glendalough and other places of interest in the neighbourhood of Dublin. Fortunately the weather, which up to the beginning of last week had been very bad, both wet and cold, changed completely, and the warmth and sunshine contributed much to the pleasure, if not the success, of the celebrations.

Permanent Memorial of Bicentenary.

A meeting of graduates was held in the Examination Hall, Trinity College, on the afternoon of July 4th to consider the establishment of a permanent memorial of the bicentenary of the Medical School. Mr. Robert Woods, ex-President of the Royal College of Surgeons in Ireland, occupied the chair, and there was a large attendance of graduates.

The chairman, in opening the meeting, spoke of the great advantage of travel to a newly qualified man, since it enabled him to see the work of other men in other countries, and he suggested that a fund should be raised to establish a second Travelling Prize, which would thus benefit not only the Medical School but, indirectly, Ireland at large.

The President of the Royal College of Surgeons (Mr. R. Dancer Purefoy) proposed:

> That it is desirable to establish a permanent memorial of the bicentenary of the Dublin University School of Medicine, and that for this purpose a fund be opened to be called the Bicentenary Memorial Fund.

An influential committee was then appointed to collect subscriptions, with Dr. W. G. Harvey and Dr. R. J. Rowlette as Honorary Secretaries, and Sir Henry Swanzy and Dr. S. Pringle as Honorary Treasurers. To establish a Travelling Prize of £100 a sum of at least £4,000 must be collected, but it is thought that there should be no very great difficulty in raising this amount, and it is impossible to imagine a more suitable memorial of this most successful celebration.

MILK SUPPLY OF BELFAST.

Further evidence in the inquiry by Mr. F. J. McCarthy and Dr. Brian O'Brien, Local Government Board inspectors, as to the application of the City Council of Belfast to obtain powers to inspect dairies outside the boundaries from which milk is brought into the town, was given by the inspectors who had reported on the dairies, and by Dr. Bailie, Superintendent Medical Officer of Health. Members of the rural district councils involved, who also gave evidence, expressed a fear that inspection by a Belfast inspector would lead to friction. Dr. Bailie argued that the Corporation did not ask for powers of prosecution, but simply of inspection. If anything was found wrong, a report would be made to the veterinary inspector of the rural district; if that failed, to the rural district council; and if that failed, to the Local Government Board. He was confident that the powers would lead to an improvement in the country dairies, as it had in the town dairies. The rural councils feared that they would lose authority in their own districts, though little objection would be taken to a Local Government Board inspector. Dr. Charles O'Neill, J.P., Medical Superintendent Officer for the Castlereagh Rural District Council, said that no complaint had been made as to the working of the Dairies, Cowsheds, and Milkshop Order in his district, and contended that there was therefore no need for a city inspector.

TREATMENT OF TUBERCULOSIS.

In a lecture delivered in Dublin under the auspices of the Women's National Health Association, Sir William Osler dealt chiefly with dispensary treatment as illustrated in Oxford. An important part of the work in connexion with the dispensary system was the shelter in which the patients slept at home, usually in the back garden. He also described the dispensary system as carried out in Edinburgh by Dr. Philip, mentioning the farm colony in connexion therewith, and its usefulness in the treatment of the cases. The reduction of the death-rate in Ireland from pulmonary consumption, though considerable, was not, he said, as marked as that in England and Scotland. Dr. Adami, Professor of Pathology in Montreal, who also addressed the meeting, said that the dispensary system was the best, because it was the most direct and the most economical method of treating consumption. His experience had been that those living in the open air in the neighbourhood of their homes had put on more weight and got out of danger sooner than those sent away 60 miles or more to the mountains.

NORTH DOWN CORONERSHIP.

At the adjourned half-yearly meeting of the county council of Down on July 5th Dr. Samuel Wallace (Lisbane, co. Down) was elected coroner, in the room of the late Dr. Robert C. Parke. There was considerable competition for the office, and many well-known practitioners of North Down were candidates. It was only on the third voting that the final decision was made. Dr. Wallace studied in the Queen's College, Belfast, and received the degrees of M.D. and M.Ch. in the old Royal University of Ireland in 1885. He is medical officer of the Kilmood Dispensary District of the Newtownards Union. The new coroner is held in high esteem by his professional brethren, as well as by the public, and is to be heartily congratulated upon his appointment.

DISPENSARY DOCTORS ON COUNTY COUNCILS.

As the result of the sworn inquiry, held at Michelstown, co. Cork, to investigate the charges of neglect of duty in the treatment of his late wife, preferred against Dr. William Hennessey and Nurse Sloan, by Thomas Quicke, of Galbally, the Local Government Board, while exonerating Dr. Hennessey from any dereliction of duty, directed attention to the fact that Dr. Hennessey by becoming a member of the county council had ignored the Local Government Board's general order of 1902, declaring "that no person, who is a member of a county council, shall be qualified to be appointed or to be a paid officer of any union or dispensary district in Ireland." Accordingly the guardians were directed to intimate to Dr. Hennessey that

he must forthwith either vacate his county councillorship or else resign the position of medical officer of the Galbally dispensary district, and that his decision in the matter should be communicated to the department at an early date. The Board added that it entertained the strongest possible objection to Poor Law medical officers interfering in the elections for county and district councillors and Poor Law guardians, except to exercise any statutory right to vote that they might possess. It was decided to adjourn the consideration of the matter for a month, when Dr. Hennessey would be present.

Scotland.

[*FROM OUR SPECIAL CORRESPONDENTS.*]

EDINBURGH CORPORATION AND INSURANCE OF ITS EMPLOYEES.

THE Town Council of Edinburgh held a meeting on June 17th to determine whether it should take advantage of the clauses of the National Insurance Act by which such bodies can obtain exemption from the operation of the Act for themselves and their employees, and finally determined by 29 votes to 11 to claim exemption only in respect of the police force. The resolution to this effect was moved by the Treasurer as a result of the report of the Treasurer's Committee, to which the matter had been referred. Its report was opposed to one previously submitted by the Town Clerk and the City Chamberlain, in which the claiming of exemption in respect of several departments in addition to the police was urged on two main grounds. One of these was to the effect that a large majority of such of the city's employees as come under the superannuation scheme established by the city some three years ago had expressed a desire to be exempted, and the other was that the city could provide for them benefits superior to those of the Act at considerably less expense. On this point estimates were put forward showing that if the city paid the employers' contributions the total expenditure involved would be £2,466 per annum, whereas if it remained outside the Act it could provide like, and even superior, benefits for some £1,782; while the employees themselves, by not being obliged to contribute, would save correspondingly. A further resolution was that the Treasurer's Committee should be directed to submit a report as to what in future should be the policy of the Corporation in regard to sick pay. There was a good deal of discussion as to what the sickness experience of the Corporation had been, but it was admitted on both sides that so soon as the Act came into operation the number of employees reporting sick, and the average number daily on the sick list, would probably increase. Suggestions were also forthcoming from both sides to the effect that political motives influenced the views expressed.

EDINBURGH SCHOOL BOARD AND A DENTAL AND EYE CLINIC.

At its meeting on June 25th the Committee on Health of the Edinburgh School Board considered a report by the clerk and medical officer, which stated that the number of children in Edinburgh whose teeth required attention was about 36,000, and that the vision of about 10 per cent. of school children was so defective that treatment was necessary. For treatment of teeth and eyes, provision of spectacles, attention to condition of the skin, the board, it was stated, might establish its own clinic, for the responsibility in these operations was not great. Large numbers of children were affected, and the hospitals in the city were already overburdened with this kind of work and did not desire more. Voluntary effort, it was practically certain, would not meet the necessities of the case. A building of, say, four rooms would be suitable for this purpose—one for the dental operations, one for the optical examinations, one for general purposes, and one for a waiting room. The staff required would be one dental operator (full time), one oculist (one-fifth time), and one nurse for general attendance. It was estimated that this staff would cost £570 per annum—£400 for full-time dentist, £100 for one-fifth time oculist, and £70 for a nurse. Equipment would cost, say—for dental room, £70; oculist's room, £30; and other furnishings for waiting room, etc., £50—in all, £150. The committee recommended that the foregoing proposals should be adopted by the board.

England and Wales.

[*FROM OUR SPECIAL CORRESPONDENTS.*]

BRISTOL.

THE visit of the King and Queen to open a new wing of the Royal Infirmary went, as royal visits usually do, without a hitch. The weather was more or less unsatisfactory, and many of the spectators had to suffer for their loyalty by getting wet through. Their Majesties arrived from Cardiff by train at the Joint station, and were received by the Lord Mayor and Lady Mayoress, the Sheriff and Mrs. Bush, the Lord High Steward (the Duke of Beaufort) and the Duchess of Beaufort, the Marquis of Bath, the members for Bristol, and other city officials. The procession being formed after certain presentations, a halt was made at the Council House, where the Lord Mayor was knighted. From thence the procession passed through the city to Clifton. Here a living Union Jack was inspected by the King, and an address was presented to him by the head of Clifton College. Passing on to the Infirmary Their Majesties alighted from their carriage at the new main entrance. They were recived by Sir George White (the President) and Lady White, Mr. Philip Vaughan (the Vice-President), who, after presentation, conducted the King and Queen to one of the new wards, which had been fitted up as a reception-room. Here several more presentations were made, amongst others being Dr. A. Prowse, the senior honorary physician, Mr. Paul Bush, C.M.G., the senior honorary surgeon, and Miss Baillie, the matron. The address of the governing body was then read by Mr. Budgett, the secretary, and His Majesty replied. After a prayer from the Bishop of Bristol, the King and Queen, accompanied by the President and representatives of the honorary staff, made a tour of inspection of the premises, and named three wards "King George Ward," "Queen Mary Ward," and "Princess Mary Ward."

The tour was continued to the nurses' garden, and it was intended that the Queen should plant a memorial tree; but this had to be omitted, as the rain was descending too heavily. This completed the tour, and the Royal party then drove to the station. Unfortunately, the rain descended at this moment in torrents, and many of the crowd were thus prevented from seeing the King and Queen, who were within a closed carriage.

The Bristol Royal Infirmary dates from 1736, thus being one of the oldest, if not the oldest, voluntary medical charity in the provinces. The old building, to distinguish it from the new wing just opened, was built in 1784, new wings having been added at various times. It had, however, been felt for a long time that the old building was far from suitable to modern conditions, and the new wing was contemplated soon after the death of King Edward VII. The new wing, which will be devoted entirely to surgery, is shaped like the letter E, the arms forming the ward pavilions, the principal staircase and lift being central, and is connected with the older building, which is on the other side of the road, by a subway. The object of the architect in planning the new wards was to obtain a maximum of light and fresh air with a minimum of dust and noise. There are five large wards to hold 24 beds, with a cubic space of 1,500 ft. for each patient, and each has a large balcony 27 ft. long. Attached also are two small wards for 1 and 2 patients respectively, with a room for the sister and a ward kitchen and larder. Special rooms are also provided near each ward for coal, storing patients' clothes, and linen. The lavatory towers are separated from the main building by cross-ventilation lobbies. On each floor is an eight-bedded ward that can be used for men and women. The three operating rooms are situated at the top of the building, and are lighted from the top as well as the sides, and each has an anæsthetic room, sterilizing room, and washing room. Other rooms are provided

for pathological examinations, for *x* rays, for splints, for coats, and for the staff. The casualty department on the ground floor is entered by an open courtyard from the street. The whole building is heated by hot water, the wards have a central fire, and the electric light has been installed everywhere. For convalescent patients the roof affords a pleasant place, and the garden has also been fitted up, so that one can be used for male, the other for female, patients. The total number of beds added to the institution is 181.

The cost was calculated at £70,000, and it has been stated that this sum has been obtained, but it has not yet been disclosed by what means.

LONDON.

LONDON COUNTY COUNCIL.

The Reorganization of Medical Inspection and Treatment.

THE Establishment Committee reported to the London County Council on July 2nd with reference to the reorganization of the public health department resolved upon last year (BRITISH MEDICAL JOURNAL, July 29th, 1911, p. 243). The object of the rearrangement was to ascertain whether a system of full time school doctors would be better than part-time officers for securing closer association of the work of medical inspection with that relating to infectious diseases, and more effective co-operation with the medical officers of health of the London boroughs. The Committee stated that the experiment had been tried in a portion of East London, and had proved highly satisfactory. Since August, 1911, it had been necessary, in order to meet the requirements of the Board of Education, to examine the children on their entering school; and, moreover, the record card had been superseded by the more detailed schedule recommended by the Board, the examination of individual children for this reason taking a longer time. Further demands upon the time of the medical staff had also been made in connexion with the examination of "special cases," and to provide for the "reinspection" now required to earn the new grant promised by the Board of Education, as to which the Education Committee reported recently (BRITISH MEDICAL JOURNAL, June 22nd, p. 1452), a considerable increase in the quarter-time staff would be required. The Education Committee, however, recommended an extension of the whole-time system to the whole of London. For the purposes of supervision the metropolis would be divided into four divisions, a divisional medical assistant being attached to each. At present there were three assistant medical officers engaged on work of a supervisory nature, one giving full time, one half-time, and one part time, so that the services of more than two additional medical assistants would be required. Under existing arrangements all examinations relating to infectious diseases were dealt with by one assistant medical officer, and all necessary bacteriological work was done by him, but it was impossible for one officer to cope adequately with this work. It would be an advantage if the examinations of the children in the schools were carried out locally under the superintendence of the divisional medical officers, and any culture tubes inoculated were forwarded to the central offices for bacteriological examination. The assistant medical officer engaged in this work should have the services of a well-trained laboratory assistant, for whom the committee suggested a remuneration of £2 a week. Having regard to the increase of work necessitated by the supervision of playground classes, the examination of children notified as being in contact with tuberculosis, and proposals for the medical supervision of dull and backward children, it was desirable to attach to each division one quarter-time school teacher to assist in some of the routine inspection.

At present pupils at institutions for higher education were periodically examined, and also scholars in trade schools and scholarship candidates. This work had been carried out by part-time doctors, but the Education Committee had reported that these arrangements were not completely satisfactory, as some of the school doctors conducting the examinations did not supervise the candidates after allocation to training colleges, secondary schools, etc., and consequently information obtained was not used to the best advantage. If the examinations for the awards and the subsequent inspections were carried out by the same officers, the work would be co-ordinated, greater efficiency would be secured, and a financial saving would be effected. It was proposed that these examinations should be carried out by two full-time medical assistants at salaries of £400 a year, rising to £500. The medical inspection work at special schools had also increased, but as a result of a re-allocation of work in connexion with the new staff arrangements now suggested it would not be necessary, for the present at any rate, to make any addition to the medical staff. It might be necessary, however, to revise the scale of salary attached to the position of the full-time assistant medical officer engaged on this work, which was of a special character.

The Finance Committee, reporting on these proposals, remarked that the Board of Education drew a distinction between (1) routine medical inspection; (2) work ancillary to, or associated with, medical treatment; and (3) medical treatment proper, and no grants were to be made, under the promise recently given in the House of Commons, in respect of routine medical inspection, though the Board, in determining the amount of the grant for medical treatment and ancillary or associated work, would have regard to the character and completeness of the arrangements and degree of efficiency with which medical inspection was carried out. The Finance Committee thought it unsatisfactory that the intentions of the Board were not made clear and definite. Although local authorities were ostensibly left a certain amount of freedom to make provision for this new medical work in their own way, in the end the Board might disapprove the methods adopted and withhold the grant. As regards the present proposals, the ultimate additional annual expenditure was estimated at £4,584; these proposals, however, were by no means exhaustive, and others involving considerable additional outlay might be expected to follow. The total amount now expended annually on medical work in the schools would be: Medical inspection, £31,000; medical treatment, £29,000—a total of £60,000. The present proposals related only to the inspection of school children, which was a compulsory duty; but, as the Board's regulations referred also to medical treatment—an optional service—the Finance Committee thought that the Council's policy in dealing with any proposals for placing the medical treatment of children on a permanent basis should be determined largely by the treatment London received in the allocation of the grant now promised.

The Establishment Committee made a number of recommendations on the lines of its report and incorporated those of the Education Committee, set out in the BRITISH MEDICAL JOURNAL of June 22nd, p. 1452. These were all approved by the Council.

MANCHESTER AND DISTRICT.

THE CARE OF THE FEEBLE-MINDED.

AT the annual meeting of the Manchester and Salford Sanitary Association, on July 4th, Mr. T. C. Horsfall presided, and a resolution was carried which set forth the chief objects of the association as being "to spread among the people a knowledge of the laws of health, to promote cleanliness, temperance and thrift, to obtain a purer atmosphere, to improve the dwellings of the poor, and to preserve the lives of their children." Much work has been done to impress on town councils the value of open spaces in towns, and the chairman showed that in Berlin the type of dwelling was so huge that the average number of inhabitants per house was 77, as compared with 8 in London, and that being so it was not surprising to find that the death-rate from tuberculosis for people between 15 and 25 years of age was 50 per cent. higher in Berlin than in London, while the general death-rate in Berlin was half as high again as in London. These differences he attributed mainly to the result of the larger amount of open space in London.

Dr. C. H. Melland read an abstract of the Mental Deficiency Bill now before Parliament, and said that those who had to deal with the insane often did not recognize that there was a great deal of difference between the mentally defective and the insane. Only a small number

of authorities had yet adopted the permissive Act of 1899, which allowed them to provide special schools and classes for defective children, and it was only in cases where such schools had been started that the education authorities would be able to keep their eye on the children in their charge. The Chairman said the bill would make it a misdemeanour for a healthy sane man to marry a girl of defective mind and vice versa, but he would like to know how that would affect cases among the well-to-do, where possibly a girl mentally defective had a considerable fortune; there were men willing to marry her for her money, and children were then brought into the world who inherited the weakness. Dr. Melland replied that the duty of notifying defectives was thrown upon Poor Law officers, medical officers of health, and constables, and though children of defective mind, attending a public elementary school, would readily be found out and notified, those not going to such a school might escape notification. It was made illegal for defectives to marry, and the offence would be punishable if parents or guardians connived at it. The difficulty of ascertaining the existence of cases among the well-to-do was admitted. The Chairman said the bill, if it became an Act, ought to co-operate with the best parts of the National Insurance Act. Swiss and German doctors seemed to agree that fresh cases of feeble-mindedness were constantly coming into existence in the case of parents who were alcoholics or who were suffering from lead poisoning, malaria, or diseases caused by licentiousness, but very little was heard of these cases in this country. Miss Dendy had said that alcoholism of parents had nothing to do with mental defect in their children, or, at any rate, was not the cause of it, but this was in direct conflict with the views of doctors and other scientific men on the Continent. Dr. Melland said the Royal Commission took a good deal of evidence on this point, and it seemed to suggest that there was not a very close connexion between feeble-mindedness and drunkenness and bad conditions of life generally, the evidence being rather that the active cause was heredity. By that was meant that it was more the result of inheritance of mental defect from defective forbears than of personal drunkenness or bad conditions of life on the part of the parents.

The meeting closed with a vote of thanks to the Chairman, who suggested that on a future occasion the question of special schools for the feeble-minded should be discussed.

WEST YORKSHIRE.

TYPHOID EPIDEMIC IN BRADFORD.

IN a note on the "Typhoid Epidemic in Bradford," published in the JOURNAL of June 1st, p. 1266, it was stated that "grave dissatisfaction" was "felt among medical men in Bradford as to the initial want of energy shown by the health authority in combating this serious epidemic," and it was stated that for some days after the first cases were notified, the medical officer of health was away from Bradford with a deputation. It was also stated that the city had not appointed a deputy medical officer of health.

In common with other medical officers of health, the Medical Officer of Health of Bradford received a letter, dated June 25th, from the British Medical Association, which contained the following paragraphs:

> In view of the fact that within a very short time some decision must be arrived at which will definitely settle the relation of the profession to the Insurance Act, it is hoped that Medical Officers of Health will use their influence with their Councils to postpone for the present steps being taken to fill any medical appointment for the administration of sanatorium benefit. The filling of such appointments at the present time is bound to be unsatisfactory, as a large number of the best men will feel in honour bound not to apply, and in addition to that it must be apparent that a delay of a few weeks cannot make any serious difference in the position. The Committee quite understands your limitations in this matter as a public servant, but trusts that you will use all the influence you can in the direction above mentioned, not only in the interests of your profession, but in the interests of the public.

In reply to this communication, the Medical Officer of Health for Bradford called attention to the paragraph in the JOURNAL under the heading mentioned, and stated that "there is scarcely a word of truth in the article."

From a report printed in a local newspaper of the meeting of the Public Health Committee of Bradford on May 15th, it appears that the medical officer of health then reported that 61 cases of typhoid fever had been reported to him since May 5th, most of them in a particular district. Of the 61 cases, 42 were known to have consumed milk supplied by a particular vendor. The number of houses invaded was 45, and, of this number, 27 were supplied with the suspected milk. There were 192 houses on the milk round, and in 27 of these (14 per cent.) one or more cases of typhoid fever had then occurred. The vendor's house had been inspected, and it was found that he had been ill from April 13th until May 7th, the diagnosis being gastritis. During his illness the business was carried on by another person who assisted the milk dealer's wife in washing and scalding the cans, the wife also waiting on her husband, whose illness, though obscure, presented nothing inconsistent with the diagnosis of typhoid fever. The milk cans had been scalded and boiled and removed to another house, and the business was being carried on by an assistant who did not come into contact with the infected house. At a meeting of the City Council on June 11th the Chairman of the Health Committee stated that up to that day 134 cases had been notified, and that of this number 106 were known to have consumed milk supplied by this particular vendor; there had been 10 deaths; the epidemic was coming to an end.

It appears from a comparison of reports in the local newspapers that the Medical Officer of Health left Bradford on April 28th with the intention of returning on May 3rd; as he no doubt did so, he was, we assume, in Bradford when the first case was reported to him on May 5th. We desire to express our regret that the contrary should have been stated or implied, and shall be very glad to correct any other inaccuracy in the article of June 1st which the Medical Officer of Health may wish to point out.

Special Correspondence.

BERLIN.

Advertisements of Drugs.—Cholin in Cancer.

THE last Medical Congress in Wiesbaden appointed a special committee to report on inaccurate, misleading, or exaggerated statements contained in advertisements of drugs or preparations published in the professional papers during 1911. The committee, which consisted of Professors Pensoldt, Gottlieb, Heubner, Klemperer, and Schmidt, selected about 1,000 advertisements from the twenty-one most read medical papers of Germany and Austria, and objected to all those in which (1) the ingredients of the remedies were not stated; (2) misleading explanations of their origin, manufacture, or composition were given; (3) there was a great difference between various samples of the same drug; (4) in which a new name was used, although the preparation did not differ greatly from mixtures known before; (5) in which unfounded or misleading assertions as to curative value or harmlessness were made; and (6) those in which the sale was against the interests of patients. The remedies examined on these principles were arranged in three lists. The first contained those remedies which satisfied all claims of the committee; the second those not answering all demands ("negative list"); and the third those as to which a specific opinion could not be given by the committee without exhaustive tests ("dubious list"). The committee stated that it refrained from expressing any opinion as to the value or worthlessness of the remedies, but this intention was not fully realized, for to a certain degree a remedy placed in the so-called negative list is discredited; therefore, a number of chemical manufacturers, whose goods had in some instances long been in the market, appealed to the committee asking the grounds of its objections. At first the committee refused any explanation, but has now expressed its readiness to give any information required.

Professor Werner of Heidelberg has obtained what he describes as encouraging results from the use of cholin in cancer, both in animals and man. He believes that the beneficial results obtained from the use of radio-active substances in the treatment of certain tumours are due to cholin and not to any radio-active effect. His theory is based on the fact that lecithin, which is present in cancerous as in other tissues, is decomposed by radiation,

the products being fatty acids, glycero-phosphoric acid, and cholin. Professor Werner's communication was made to the Natural History Society of Heidelberg. Full details are not available, but it is stated that cholin has been used in some cases where the cancer was in an inaccessible position by intravenous injection.

Correspondence.

TABLES OF STATISTICAL ERROR.

Sir,—Your issue of June 22nd last contains a review of the *Tables of Statistical Error*, recently published by us (*Annals of Trop. Med.*, vol. v, No. 3), and, while we appreciate the friendly tone of the review, we think that there are some points in it which make it necessary (in order to avoid misconception) to add a note on the subject.

In the first place, the problem by which your reviewer illustrates the use of the tables is not, we think, quite the same as that for which the tables were designed. He considers the probability that a *second* sample comes from the same "population" as the first, while the tables are designed for the purpose of considering *first* samples, when the material under consideration obeys the Gaussian or Normal Law or Error, and, as we have stated on page 355, lines 13 to 15, we should calculate the percentage, not for each successive batch of 100, but for the total number examined from the beginning. This would make the value of p in the example given by the reviewer to be 14½. We would then, *in the absence of any definite reason to the contrary*, apply this value in any probability question according to the normal law.

If it is objected that the *normal law* is not likely to meet the majority of cases that turn up in practice, we here touch a point that is very doubtful. We can only say that the consideration of what statistics *do* or *do not* obey the normal law is too complicated to bring before the medical men who have had no mathematical training; and although Professor Karl Pearson has shown that the normal law is less perfectly fulfilled by Nature than is usually supposed, there seems to be no *a priori* reason why a correction should be taken which usually leads to a leptokurtic curve.

Whatever the importance of Professor Pearson's "Generalized Probability Curve" may be, we felt it would hardly be suitable to introduce such difficulties in the way of beginners, although it might have been better, as your reviewer says, to emphasize the dangers for small percentages, particularly in using Tables A (5) and A (6). It should be remembered that it is advisable to submit full details of the experiments ultimately to an expert, in order that the law obeyed should be determined and correct estimates of the error given; but the law should be *plainly* visible in the data given, or be deduced from *a priori* considerations, before it is worth while undertaking the more laborious, and not always very certain correction of Professor Pearson.

We quite admit that for small values of p, say, less than 10 per cent., the normal law is unlikely to hold, but unfortunately it is the nature of scientific research to lead us continually outside the limits of all our existing tables and probably outside all we are likely to publish; and it is not generally possible to state very accurately the limits of their use.

It is not intended that our tables should do away with the necessity of ultimately consulting a specialist, but we think that they may safely be used in the laboratory as a fair guide during the progress of the work, *even for small values of p*.—We are, etc.,

Ronald Ross.
Walter Stott.

University of Liverpool, July 1st.

THE ARRIS AND GALE LECTURES ON SHOCK.

Sir,—We wish to thank Mr. Mortimer for his courteous letter and criticism on the above lectures. Mr. Mortimer complains that a definition of shock is not offered until near the end of the lectures, and that then it does not accord with the customary meaning of the word. We are well aware that our conception of the mechanism of shock does not agree with the accepted meaning of the word; it is for this reason that our definition was postponed until we had produced sufficient evidence to support such a definition. We could well have understood a complaint from Mr. Mortimer had this definition been offered at the outset. We endeavoured to show that the end result of shock (that is, collapse) is also an end result of other agencies; that in each case the mechanism of its production being different, the mechanism of its prevention must be different also. Thus, to Mr. Mortimer's simile, "a man is not described as intoxicated when he has drunk one glass of wine," we would add that the first glass of wine is, nevertheless, the first step towards intoxication.

It is these first steps which we submit are of the greatest importance in a study of the mechanism of shock, which starts with the skin incision just as alcoholic intoxication commences with the first glass of wine. Mr. Mortimer could not have selected for us any simile more apt than this one.

With regard to the estimated blood pressure changes, Mr. Mortimer has misrepresented our meaning by a misquotation; for he omitted the context and reproduced in the positive a statement which was originally made in the comparative; an error which entirely masks the object of the lectures. For, whereas it is undoubted that the blood pressure is of great importance, we persist in believing that it is of "vastly greater importance as a symptom or sign of infinitely graver disturbances . . . ," etc.

We quite agree with Mr. Mortimer as to the many factors influencing the blood pressure, and to the skilful interpretation demanded by a study of its variations during surgical operations; it is for this reason we are inclined to agree also that such variations cannot have the slightest significance, pathological or clinical, when estimated "by feeling the pulse." We appreciated the infinite sources of fallacy in our blood pressure readings, and took great pains to prevent such errors from influencing our deductions; and it hardly seems that this labour was justified if Mr. Mortimer can adequately detect these vasomotor variations by "feeling the pulse." With regard to the innervation of the heart, we need only refer Mr. Mortimer to the many charts where the pulse-rate is depicted: we demonstrated numerous instances of the different response of the heart and blood pressure together to peripheral stimuli under different conditions. (We would particularly refer the writer to Chart 28 and to the deductions made therefrom.)

With regard to general anaesthetics: Diagram I refers exclusively to the effect of these on the access of peripheral centripetal stimuli to the important centres; and, as such, it can hardly be called misleading. This diagram does not pretend to deal with the effects of general anaesthetics on the tissues, which would be foreign to the immediate argument. The "sweeping assertions about anaesthetics" can hardly be defended unless they are specified; though it is difficult to see what value interpretations of blood pressure readings during operations can have, until variations attributable to the anaesthetic have been ascertained previously. Thus, though "time and circumstance limited" the amount of evidence we were able to submit, we are unable to regret this *essential* part of our study, or to see reason for withdrawing such deductions as were relevant.

When Mr. Mortimer objects to the classification of the effects of general anaesthetics with those of toxaemias, he must have overlooked the similarity of Charts 38 and 52; these were shown as examples. We are confident also that a further reference to the lectures will convince Mr. Mortimer that he is mistaken in supposing that the value of general anaesthesia in the control of mental shock was overlooked; it was most fully realized in the paragraphs on "Conclusions," "Mental Shock," "Traumatic Shock," "Exophthalmic Goitre," etc. Indeed, it is the realization of the importance of this factor in surgery which has induced one of us repeatedly to advocate elsewhere the restriction of the employment of spinal anaesthesia almost entirely to children, in whom practically no mental shock ever accompanies its use.

We agree with Mr. Mortimer that many of these points would have been more satisfactorily dealt with in greater detail, a fault for which due apology was made, and one which we hope to remedy when our researches are published in full. But we would conclude by asking Mr. Mortimer to believe that the subject has been approached equally from the point of view of the practical anaesthetist as from that of the surgeon; for, where the welfare of a patient is concerned, these two standpoints are the same,

and it is largely from this joint aspect that we are trying to view the general principles of this complicated subject.—We are, etc.,

London, W. H. TYRRELL GRAY.
Birmingham, July 2nd. LEONARD PARSONS.

APPENDICITIS—AND QUICKNESS.

SIR,—I would ask Mr. Morton to remember that when I said in a previous communication I had no fault to find with operation within twelve hours of the onset of an attack of acute appendicitis, it was the question of *mortality* that was being discussed. On that point there are no grounds for asserting that harm is done. This, however, does not prove that such a course of action is necessary, and it is because I think it is not so that entitles me to say that it is unwise. My reasons for this opinion are that by following it not only are many errors of diagnosis perpetrated, but it creates the general belief that such a procedure is a necessity—a most erroneous and unfortunate view, because the large majority of cases of acute appendicitis would recover quite satisfactorily under dietetic and other medicinal measures. The advocates of "immediate operation" have no right to claim that all such cases when operated on have been snatched by surgery from the jaws of death. They are nothing of the kind, and are only so in the minds of those who operate and who conjure up all the possible contingencies that might happen but do not do so under proper management.

What, however, is the greatest objection to this doctrine of "immediate operation" is that it is extended indiscriminately to all cases of acute appendicitis irrespective of the time that the disease has existed. It is this, I consider, that is responsible for many of the deaths in operations for acute appendicitis. What I wish to emphasize is that when an acute attack has existed for more than twenty-four hours, unless there are definite symptoms of general suppurative peritonitis, operation is best postponed, as such cases under medical management do well and can be safely brought to the "interval stage," where the operative mortality is *nil*. It ought to be more generally recognized than it is that so long as a case of acute appendicitis is a "localized" one there is no need to fix definitely what is the condition of the appendix. Such cases, if properly managed, will remain localized, even though they do enclose a perforated or even a gangrenous appendix within their barrier of isolating lymph. That this is so my operative experience has abundantly shown me.

The other point I wish strongly to enforce is that the presence of a localized appendicular abscess does not imperatively call for "immediate operation," unless it is pointing. Mr. Morton in his letter says that he did not for a moment imagine that any surgeon deliberately intended to leave an appendix abscess without dealing with it by operation. I thought I had made it abundantly clear in my lecture and in my previous communications that I do leave such abscesses untouched, though not indefinitely. I allow a period that varies with individual cases, but is regulated by pulse, temperature, and blood count, and may range from ten to twenty-one days, before interfering with them, as I find that by so doing the virulence of the pus, as shown by cultures, has diminished, and the cases may be more safely dealt with. Mr. Morton quotes from Mr. Makin's article in *Burghard's Manual of Operative Surgery*, and gives the serious complications detailed by that surgeon in connexion with fifty-nine appendix abscesses. What is the heading of the paragraph from which his quotation is made? It is as follows, and is in large letters: "*Mortality after operations for local abscess.*" Not, it will be noticed, the mortality from local abscess, but the mortality after operation for local abscess. In fact, Mr. Morton furnishes me with valuable confirmatory evidence in favour of the very point I am contending for—namely, that interference with localized appendicular abscess in its acute stage is most disastrous, and sets up a train of complications that are at the root of our heavy mortality statistics in acute appendicitis, and that are the explanation of the tedious convalescence of many of the cases that do recover. My delayed operation in 69 cases of localized abscess was not accompanied by any of the serious complications enumerated by Mr. Makins. Mr. Morton thinks there must be some other factor than delay that has entered into my results. There undoubtedly is, and that is a firm belief in, and the rigid observance of, the careful dietetic and medicinal measures laid down in my paper. The two combined render delay safe, and allow of there being developed those salutary agencies that are most helpful in these toxic cases of acute appendicitis. Into these I cannot enter now, as I have already, Sir, made too heavy demands on your space. The importance of the issues at stake must be my excuse, but I feel that this must be my last communication to the discussion.—I am, etc.,

Glasgow, July 7th. GEORGE THOS. BEATSON.

SIR,—I think the profession are much in Sir George T. Beatson's debt for the attitude which he has taken on this subject, and I feel convinced that the experience of the great majority of general practitioners will agree with his. Briefly, two facts stand out clearly in my mind: (1) The vast majority of cases, if properly treated, get perfectly well without operation. (2) That operating surgeons find in every case pathological conditions which, if left, would end in disaster.

What is the explanation of this? Is it not to be found in the fact that the surgeons have no experience of the medical treatment of appendicitis, and that they underrate the protective resources of the peritoneum?—I am, etc.,

Kirkby Lonsdale, July 1st. T. G. MATHEWS.

SIR,—I have followed the correspondence in your columns on this subject with much interest, and only venture to prolong it because of my disappointment on reading Sir George Beatson's last letter. One hoped that we should have an answer to Mr. Paterson's question as to whether Sir George Beatson would tell us the signs and symptoms which guide him in deciding which cases of appendicitis are to be operated on or left. Sir George ignores this question, and simply restates his opinion that the few cases which he considers must have immediate surgical treatment are "easily recognizable." One asks again, How? In one letter he does "not object" to operation within twelve hours of the onset of an attack, while in another he thinks this treatment neither "good" nor "safe."

He suggests that the rule of operation within twelve hours may result in cases of longer duration being thus treated. Surely Sir George will give other surgeons credit for ascertaining exactly when the attack did start, before operating. One is much interested to know whether the most instructive case reported by Mr. Childe in the JOURNAL of June 22nd is one Sir George would have "treated on its merits."

The more I see of appendicitis, the more am I convinced that the only safe treatment is operation as soon as possible after the onset of the attack. It was very refreshing to read in the same issue, of the 22nd, a letter from a physician supporting this view. I hope that South of the Tweed this will continue to be the method of treatment, and then the surgeon will have fewest regrets and his patients the surest and most rapid recoveries.—I am, etc.,

Leominster, July 3rd. GORDON W. THOMAS.

THE AUTOINOCULATION TEST IN TUBERCULOSIS.

SIR,—I wish to thank Dr. H. W. Crowe for his kind reply to my inquiry. For many years I have studied the question of tuberculosis and its treatment. Being in general practice and having no hospital, it is wellnigh impossible for me to do the opsonic index. I have had it done for me by experts in that line, and from a diagnostic standpoint I have found it accurate and useful. The results of the opsonic index are, in my opinion, not so useful as a guide to treatment.

I have given tuberculin according to Wright's method and according to Wilkinson's. In my hands the latter has given the better results. Thanks to the kindness of Dr. Wilkinson I was able to watch his work at his dispensary in London. Everything in connexion with the dispensary—the cases, the work, and the results—is honest. To my mind Dr. Wilkinson deserves great credit for the work he is doing and for his unending courtesy in explaining his methods to those who wish to learn. All that he asks is

that he be not judged by those who have no personal knowledge of him or his work.

I am accustomed to giving tuberculin in all kinds of cases (pulmonary included), every four days, in some every seven. I even give it in febrile cases and the results have justified my doing so. In these, my "four-day type" of cases, the negative phase can only have lasted two days or so, for my results have shown no indication of harm being done and no continuous rise of temperature, which they would have shown had these doses been given during a negative phase. Taking these facts into consideration, one has still to answer the question, What is the clinical significance of the negative phase?

Much good work has been done in this branch of scientific research, but much has still to be done. To my mind the goal would be reached sooner if each worker did his little bit for the good of the whole, helping and being helped, and leaving the destruction of his brother worker's theories to that ever-watchful law—the survival of the fittest.—I am, etc.,

Lisburn, July 1st. J. L. RENTOUL.

TUBERCULIN TREATMENT.

SIR,—I would like to express my appreciation of the valuable leading article on the above subject in the BRITISH MEDICAL JOURNAL of July 6th. I feel sure it will have the effect of steadying the profession with regard to this very valuable, though powerful, remedy in the treatment, more especially of pulmonary tuberculosis. Dr. Sézary, in his valuable book, *Tuberculinothérapie et sérothérapie anti-tuberculeuse*, gives the results of his own experience, and clearly shows that the effects which are produced by tuberculin, excellent as they are in practice, yet cannot be accounted for in theory. Dr. Sézary has found that the immunity afforded by one strain of tuberculin does not hold good when another strain is used—in fact, the process of immunization in that case has to be started again with the new strain.

In my opinion the whole secret of successful treatment with tuberculin is in the particular strain of bacilli which is used to immunize the patient. I have long held the opinion that the opposite strain of bacilli is necessary to combat the particular infection from which the patient is suffering. Pulmonary tuberculosis, being nearly always caused by human bacilli, requires for its treatment a tuberculin manufactured from bovine bacilli (*Perlsucht*); this tuberculin is much less irritating and not nearly so toxic as other forms; and, moreover, its action is more or less specific in suitable cases of lung tuberculosis; the other forms of tuberculosis, such as enlarged glands, abdominal tuberculosis, and the so-called surgical forms of the disease, being more frequently caused by bovine bacilli, require for their treatment a tuberculin prepared from human tubercle, and the action of tuberculin in this case is certainly, in many cases, marvellous.

Your article, however, has clearly pointed out that tuberculin must be used with great discrimination, and the utmost care must be exercised in its application. After an experience of some thousands of cases of tuberculosis both in hospital and private practice, I have come to the conclusion that tuberculin can only be of service in a small percentage of patients. These cases must be selected with care, and although, as a general rule, the early cases of tuberculosis show the best results, yet even in cases of advanced disease, where the symptoms are of a quiescent character, tuberculin often gives astonishing results. I am convinced, however, that the treatment ought to be carried out only by those physicians who have made a special study of the disease, and who have had experience in the use of this powerful remedy. The patients should be under constant observation, either in an institution or under good home conditions, and the dosage should be so carefully regulated that reactions do not result after the injection of each dose. It is just as necessary for a specialist to inject tuberculin as it is for a specialist to handle important organs like the eye and the ear, and I feel compelled to utter this note of warning in the interests both of the remedy itself and in the interests of the reputation of those physicians who recommend its use, as I feel convinced that it is of the utmost value as a means of treatment, provided it is used with due care and discrimination.—I am, etc.,

Liverpool, July 8th. NATHAN RAW.

SIR,—Having had some experience of the treatment of tuberculosis by tuberculin in large doses, as advocated by Dr. Camac Wilkinson, at the Tuberculin Dispensary (of the Tuberculin Dispensary League), 263, Kennington Road, S.E., we should like to record our opinion as to some of the strikingly favourable results of this treatment.

Our experience has extended over periods varying from nearly two years to a few months, and during this time we have been very deeply impressed with, among others, the following points in connexion with the treatment:

1. Over 70 per cent. of the patients are able to continue their usual avocations while under treatment.
2. The absence of any danger to the patient.
3. The diagnosis is made after a careful examination of the patient, of the sputum, and by the exhibition of tuberculin.
4. The results obtained, and which we have seen during our attendance at the dispensary, in cases of pulmonary tuberculosis (even in some late stages of the disease), in lupus, in tuberculous disease of glands, in laryngeal phthisis, in discharging sinuses due to tuberculous diseases of joints, and in pulmonary phthisis in pregnant women, compel us to bear testimony to the efficacy of this system of treatment.—We are, etc.,

ANNIE MCCALL, M.D. (London), JOHN MACKEITH, M.B., C.M. (London), A. D. SERRELL COOKE, M.B., Ch.B. (London), JOHN RENNIE, M.D. (London), R. BRINDLEY MORRIS, M.R.C.S.Eng., L.S.A. (Putney), J. HORNE WILSON, M.D. (London), REGINALD HYDE, M.R.C.S., L.R.C.P. (Kingston-on-Thames), M. T. BULLOCK, M.B., L.R.C.P. and S. (London), J. N. GRIFFITHS, M.B., etc. (Sydney), WILLIAM C. ELLIS, M.D., D.P.H., etc. (Upper Tooting), JOHN F. WALKER, M.B., M.R.C.S. (Southend), F. SILVA JONES, M.B., B.S. (Westcliff), J. ALEX. GENTLE, M.B., C.M. (London), H. HARVEY NORTON, L.R.C.P., M.R.C.S. (London), HENRY APPLETON, M.D. (London), J. H. ACHESON, R.N., M.B., D.P.H. (Lowestoft), H. WOOLCOTT HULL, M.R.C.S., L.R.C.P.Lond. (Southend), M. ASHRUFF, M.B., Ch.B. (Hyderabad, Deccan), F. R. MALLARD, M.R.C.S. (London), W. MCCALL, M.D.Brux., L.M., L.S.L.Lond.

July 9th.

FORCIBLE FEEDING.

SIR,—Respecting the forcible feeding of Suffrage prisoners, a statement by Mr. McKenna appeared on July 4th in certain newspapers purporting to be a reply to a question in the House of Commons put to him by Mr. Goldman in reference to a memorial against the forcible feeding of Suffrage prisoners signed in twenty-four hours by 117 practitioners, and of which we were the secretaries. The Home Secretary's statement was as follows:

> I have received the memorial referred to, but as the memorialists are unable to suggest any alternative method by which prisoners who refuse food can be prevented from committing suicide I am unable to attach much weight to their representations. I may add that I have received another memorial signed by most distinguished medical men stating that feeding by tube, if carried out in accordance with the usual rules of procedure, is neither dangerous nor painful. The compulsory feeding of recalcitrant prisoners is a most unpleasant process, extremely distasteful to those whose duty it is to carry it out, and everything is done by the medical staff of the prisons to avoid it where possible, and, when it is necessary, to guard against any risk to health and to minimize the discomfort to the prisoner.

To this statement we now return the following answer:

Mr. McKenna and Medical Memorialists.

Mr. McKenna's reply to Mr. Goldman is grotesquely misleading. The medical memorialists, who are opposed to the forcible feeding of Suffrage prisoners, have made no such statement, as is suggested by the Home Secretary, on the question of alternative methods of treating all prisoners, and, of course, it is impossible to obtain in a few hours from 117 busy practitioners an answer, such as he alleges he received, to a question of which they had had no notice. Apparently Mr. McKenna is under the impression that any assertion is good enough as an answer for the House of Commons.

Mr. McKenna further adds that he has received an anti-memorial signed by "most distinguished" medical men suggesting that forcible feeding of Suffrage prisoners is

"neither dangerous nor painful." In the interests both of medical truth and the civilized treatment of political prisoners it is Mr. McKenna's duty to publish immediately this anti-memorial and the names of the signatories thereto.

If Mr. McKenna's "most distinguished" but anonymous informants are correct, then they have proved the Home Secretary to have acted with the grossest injustice to some prisoners, and Mr. Ellis Griffith to have made false statements to the House of Commons. For the Home Secretary has released some prisoners and kept others in prison on the following medical grounds, as stated by Mr. Ellis Griffith in the House of Commons on June 26th: A certain number (exact figures not given in *Hansard*) were released by Mr. McKenna because forcible feeding would have been "dangerous to health," and others because after being fed once or twice "it would be a danger to health or life (*sic*), as the case might be, if the treatment were persisted in."

A prison treatment of which such statements are made is not the simple, harmless process Mr. McKenna's nameless advisers allege it to be. Moreover, the actual medical facts of the cases of those persons who have been forcibly fed by Mr. McKenna are being collected, and we shall soon be able to form a just opinion of a violent procedure which has no real relation to the asylum and hospital practice to which it is sometimes compared. In fact, the falsity of this hospital analogy is completely demonstrated by Mr. McKenna himself, for he has admitted that he has been obliged to discharge many of his own cases owing to their health and lives being endangered by his procedures, whereas, of course, lunatics or hospital cases are never so discharged, and certainly not because the artificial feeding administered to them endangers their lives.—We are, etc.,

AGNES SAVILL,
CHARLES MANSELL MOULLIN,
VICTOR HORSLEY,
Secretaries to the Medical Memorial.

July 10th.

THE LIVERPOOL CITY ARMS.

SIR,—In the many excellent articles which have appeared preparatory to the meeting in Liverpool, mention, I think, has not been made of a matter which might possibly interest the student of natural history. I refer to the bird and its mouthful which appear in the City arms. These arms are heraldically described thus:

Argent, a cormorant sable, beaked and legged gules, holding in its beak a branch of sea-weed called laver, inverted, vert.

The cormorant (*Phalocrocorax carbo*) is a bird which formerly inhabited the estuaries of the Ribble and the Mersey. A stuffed specimen is in the Liverpool Town Hall. A variety, now extinct, was known as the "liver," and from the latter bird the town is supposed to have derived its name.

The device in the city shield is very ancient, for although the arms of Liverpool were duly granted in 1797, the bird with a sprig in its mouth is found on a corporation seal made in 1222.

The sprig in the bird's mouth is a bunch of laver (*Porphyra laciniata*), and is supposed to have been the material upon which the bird lived. Laver is a great luxury, and is met with occasionally at a city dinner. When we dine in Liverpool, will our colleagues in that city regale us with a morsel of the delicious vegetable which formed the *pabulum vitae* of the eponymous bird?—I am, etc.,

S. D. C.

July 5th.

The Services.

PRESENTATION TO LIEUTENANT-COLONEL DE ZOUCHE MARSHALL.

LIEUTENANT-COLONEL J. J. DE ZOUCHE MARSHALL, V.D., on his retirement from the command of the Surrey Medical Unit, which he raised in 1902 as the East Surrey Bearer Company, has been presented with a pair of silver entrée dishes bearing the following inscription: "Presented by the Officers, N.C.O.'s, and Men of the 3rd Home Counties Field Ambulance, R.A.M.C. (T.F.), to Lt.-Col. John J. de Zouche Marshall, V.D., on his relinquishing the command. June, 1912. Geo. A. Edsell, M.D. (Lt.-Col. Commanding), William Argent (Sergt.-Major)."

Public Health AND POOR LAW MEDICAL SERVICES.

DUTIES OF WORKHOUSE AND DISTRICT MEDICAL OFFICERS.

H.—It would appear that our correspondent is a workhouse medical officer, and also a district medical officer. These appointments are quite distinct, and must be paid for separately. With regard to the first, the duties of the medical officer do not extend outside the workhouse, and, as a certain number of children have been transferred to a home, his duties to that extent have been lightened; although it would appear that, owing to additions to the union, he now receives patients that previously could not come under his care. But it does not appear that there has really been any increase of his duties as workhouse medical officer. With regard to the second—the district medical officer—his duties are to attend to any of the outdoor poor in his district. If the home to which these children have been sent lies within his district, it is part of his duty to attend to any of them on receiving a proper order from the relieving officer. In not a few instances boards of guardians have in recent years appointed a special medical officer to attend to such homes, at a special salary; but this is not obligatory. In many cases, as a neighbourhood grows, the district medical officer finds that his work greatly increases, and he may properly ask for a revision of his salary. If the addition to our correspondent's duties caused by having to attend to this home is a considerable increase, he would be justified in asking for such a revision, but it is impossible from the details given to suggest what increment he should ask for.

Universities and Colleges.

UNIVERSITY OF OXFORD.

A New Fellowship.

NOTICE has been given by the authorities of Magdalen College that next Michaelmas term they will make an appointment to an Ordinary Fellowship after an examination having special reference to excellence in medical science.

The person to be elected must have passed all the examinations required by the University of Oxford for the degree of B.A., must be unmarried, and must not be in possession of any ecclesiastical benefice, or of any property, pension, or office tenable for life or during good behaviour, the annual value of which exceeds £300 per annum. The examination, which will begin on Tuesday, October 1st, at 10 a.m., in the College Hall, will include the following:

A. An English essay on a general subject. B. Papers in (1) General Physiology; (2) General Pathology; (3) one of the following special subdivisions of the above subjects—that is, (*a*) Physiological Chemistry, (*b*) the Special Physiology of excitable tissues, bodily movement, circulation, respiration, and secretion, (*c*) the Special Physiology of the nervous system and sense organs, (*d*) Bacteriology and its relation to Disease, (*e*) the Special Pathology of Disease, (*f*) Psychology.

Candidates may offer in addition Chemistry or General Biology, or Human Anatomy (including Embryology), or Histology; they will also be given the opportunity of showing their power of translating from scientific treatises in Latin, French, and German. There will be a viva voce examination of candidates at the discretion of the examiners, but practical work will not form any part of the examination, either in general or additional subjects. Candidates may further submit evidence of research work done by them in the form of papers already published or accepted for publication. All persons who wish to become candidates will be required to give notice *in writing* (1) of their intention to do so, (2) of the special division of Group B 3 which they propose to offer, (3) of their intention, should they wish to do so, to offer either Chemistry, or General Biology, or Human Anatomy, or Histology, to the President of Magdalen College, not later than Saturday, July 20th. All evidence they desire to submit of research work, which must be in the form of published papers or of typewritten copies of MSS. accepted for publication by some scientific journal, must be sent in to the President not later than Saturday, September 28th. All candidates will be required to call upon the President of Magdalen College on Monday, September 30th, between the hours of 6 and 7 p.m., bringing with them testimonials of their fitness to be elected to a Fellowship in the College as a place of "religion, learning, and education." The person elected will be expected to reside for three months during the first year after election, but this residence may be dispensed with for sufficient reason.

Scholarships.

The following awards have been made: The *Theodore Williams Scholarship in Anatomy* to Mr. W. B. Littlejohn, of New College; the *Theodore Williams Scholarship in Physiology* to Mr. Gerald K. Bowes, of Christ Church; the *Theodore Williams Scholarship in Pathology* to Mr. G. E. Beaumont, of University College.

UNIVERSITY OF LONDON.

London Hospital Medical College.

The annual prize-giving ceremony in connexion with the London Hospital Medical College took place on July 1st, under the presidency of the Chairman of the College Board, Mr. W. Douro Hoare. The prizes were distributed by the Chancellor of the University of London, Lord Rosebery, who in the course of the proceedings delivered the address to which allusion was made in our issue for July 6th, p. 36. A report as to the progress of the school was made by its Dean, Dr. William Wright, who said that the average number of students had been more than maintained, while the academic distinctions gained by them at various examinations were above the average. The endowment fund of the College had risen to £7,500, and a grant of £4,300 in respect of the coming year had been received from the Board of Education; acceptance of this sum imposed great obligations and responsibilities, but these were fully appreciated. It had already enabled a number of small reforms to be made in the College, and he hoped the coming year would see more important changes, some of them marking a distinct step forward in medical education in this country. The Dental School had also fulfilled the highest expectations regarding it. It had been equipped on the most modern lines, and its success had been so pronounced that the question of its extension must soon be considered. A garden party in the hospital grounds followed the conclusion of the formal proceedings.

Officers' Training Corps.

The annual inspection of the contingent took place in Hyde Park on Saturday, June 29th, the inspecting officer being Major-General Cowans, Quartermaster-General to the Forces. The corps paraded at nearly full strength, the Medical Unit being over 200 strong, under Major W. P. Herringham, the Vice-Chancellor of the University. Major Capper was in command of the parade. The inspecting officer expressed himself well pleased with what he had seen; he pointed out that more officers were required for the Special Reserve of Officers, and hoped that during the coming year the number of cadets applying for commissions would be increased.

The annual dinner of the contingent was held on June 28th, at the Great Central Hotel, Major Capper being in the chair. The toast of "The Corps" was proposed by Sir Albert Rollit, and responded to by Majors Charles and Tooth; that of "The Guests" was proposed by Captain Harris, and responded to by Dr. Hill, the Secretary of the Imperial Universities Congress, and by Major Meicklejohn, V.C., of the War Office. Music was supplied by the excellent band of the contingent.

UNIVERSITY OF EDINBURGH.

Honorary Degrees.

Among those who received the honorary degree of LL.D. at the graduation ceremony on July 5th were Sir James Porter, Director-General of the Medical Department of the Royal Navy, and Professor Cash, F.R.S., Aberdeen.

UNIVERSITY OF ABERDEEN.

The following were among the degrees and diplomas conferred at a meeting of the Senate on July 9th:

M.D.—†G. S. Melvin, *J. A. Beattie, *R. M. Chance, *A. J. Shinnie, *D. J. S. Stephen, D. M. Baillie, A. L. E. F. Coleman, H. G. Deans, A. Gray, G. Michie, W. R. C. Middleton, J. Mitchell, H. W. Smith, G. I. T. Stewart.

M.B., Ch.B.—D. S. Badenoch, W. F. Beattie, M. M. Cruickshank, R. E. Dastur, Elizabeth M. Edwards, A. F. Fraser, W. J. S. Ingram, S. W. Lund, E. A. Pearson, A. C. M. Savege, J. Shaw, C. W. Weir, J. Wood.

D.P.H.—J. Brown, E. W. Wood-Mason, H. S. Milne, J. G. Muterer.

* "Commendation" for Thesis. † "Honours" for Thesis.

UNIVERSITY OF DURHAM.

The following candidates have been approved at the examination indicated:

Third M.B. (*all subjects*).—*C. Armstrong, I. G. Cummings, C. N. Gover, Mary L. Haigh, M. H. De J. Harper, C. Jacobs, R. R. Lishman, E. R. A. Merewether, F. Metcalfe, E. C. G. Parker, I. M. Pirrie, K. I. S. Smith, C. R. Smith, J. C. Spence. *Public Health, Medical Jurisprudence, Pathology, and Elementary Bacteriology*: E. Phillips.

* Second class honours.

UNIVERSITY OF LIVERPOOL.

Chair of Bacteriology.

Professor James Martin Beattie, M.D., at present Professor of Pathology and Dean of the Medical Faculty in the University of Sheffield, has been appointed Professor of Bacteriology. Professor Beattie has also been appointed by the City Council to the office of Bacteriologist for Liverpool, a post involving work similar to that which he has discharged for the last five years at Sheffield.

Fellowships and Scholarships.

Holt Fellowship in Pathology.—H. C. W. Nuttall.

Holt Fellowship in Physiology.—R. Kennon and Robert Gee.

Fellowship in Anatomy.—J. H. Rawlinson and Thelwall Thomas.

Fellowship in Surgical Pathology.—A. A. Rees.

A University scholarship in medicine has been awarded to Ethel Chadwick.

UNIVERSITY OF LEEDS.

Degrees.

The following were among the degrees conferred at a congregation on June 29th:

M.B., Ch.B.—*G. P. Mellis, †L. Dunbar, J. Ferguson, and G. W. L. Kirk.

* First class honours. † Second class honours.

Examinations.

The following candidates have been approved at the examinations indicated:

Second M.B., Ch.B. (*Part I*).—R. H. Chadwick, D. A. P. Clarke, A. S. Hebblethwaite, C. H. Seville. (*Part II*): Jane Bamford, H. Franklin, H. M. Holt, W. L. Ingham, C. E. Leake, J. Liberman, W. H. Lonen, J. Rosencwige, Jessie Smith, R. S. Topham, Augusta Umanski, and F. Walton.

Final M.B., Ch.B. (*Part I*).—E. Hesterlow and W. D. A. King.

D.P.H. (*Parts I and II*).—D. F. Dobson. (*Part I only*): G. O. Chambers and A. Dick.

D.P.M. (*Parts I and II*).—J. M. Noyes and E. A. Waldron.

Medico-Legal.

COLLECTORS AND THE WORKMEN'S COMPENSATION ACT.

W., who recently made inquiry at a large insurance office with regard to the insurance of a locumtenent for compensation purposes, was asked by the company whether his collectors were insured. To this he replied in the negative, pointing out that, as his collectors were employed entirely on commission, he did not consider that he was liable. The company replied to the effect that it would be necessary to insure the collectors, as it did not insure part of a staff. Our correspondent asks for definite information on the point.

*** We cannot recall a case precisely on all-fours, but we agree with our correspondent that it is very doubtful whether, in the circumstances described, a collector can be said to be a workman. Assuming that a "collector" is a person paid by commission, the question is: Is a person who is paid by commission "employed" within the meaning of the Workmen's Compensation Act, so as to render the doctor liable if the collector meets with an accident? "Workman," within the meaning of the Workmen's Compensation Act, does not "include . . . an outworker . . . but it means any person who has entered into or works under a contract of service with an employer." The fact that a man looks to a certain person for payment of his wages was in an old case held to be *prima facie* evidence that the person is his master; and it has been held that the wages may, for this purpose, consist of payments by commission (R. *v.* Tite, 30 L.J.M.C. 142).

Obituary.

WILLIAM MURRELL, M.D., F.R.C.P.,

Senior Physician to the Westminster Hospital.

Dr. William Murrell, who died on June 28th, had been suffering for many months from signs of heart failure, which necessitated complete rest in February. In the beginning of June, in view of his promotion to the post of Senior Physician to the Hospital—the climax of his professional career—he pluckily insisted upon making an attempt to resume his work, and for three weeks he struggled on. The effort, however, proved beyond his strength, and in all probability hastened his end.

William Murrell, who was born in 1853, was the son of Mr. W. K. Murrell, barrister. His medical education was received at University College, where, after obtaining the diplomas of L.S.A. in 1874 and M.R.C.S.Eng. in 1875, he held the usual resident posts. He was also for a time Resident Clinical Assistant at the Brompton Hospital. Later he was appointed to the staff of Paddington Green Children's Hospital, and for a time was Physician to the North-West London Hospital. In 1877 he became Medical Registrar to the Westminster Hospital for a couple of years, and in 1883 he became Assistant Physician, being promoted to the full staff in 1898. He became M.D. of Brussels in 1879, and F.R.C.P. London in 1883.

The branch of medicine to which he mainly devoted himself was that of pharmacology and therapeutics, in which he attained a wide reputation. He was examiner in materia medica to the Conjoint Board in England, and to the Universities of Edinburgh, Glasgow, and Aberdeen. He was the author of a *Manual on Pharmacology and Therapeutics*, and also edited the 4th edition of Fothergill's

Handbook of Treatment, published in 1897. His most popular work, however, was a little book entitled, *What to Do in Cases of Poisoning*, published originally in 1881, which reached its 11th edition during the present year. He also wrote upon massage, upon the treatment of chronic bronchitis, and on angina pectoris. His book upon forensic medicine and toxicology reached its 6th edition in 1903, and his work on materia medica was published in 1900. In view of his eminence in pharmacology he was elected Lauréat de l'Académie de Médecine de Paris, and Honorary Fellow of the Medico-Chirurgical College of Philadelphia.

His character was marked by shyness and a certain amount of reserve, and in consequence, perhaps, of this, his circle of intimate friends was limited. He was a bachelor, and lived a somewhat secluded life, finding his main occupation in his work. He took a keen interest in the welfare of the Westminster Hospital, and was an assiduous member of the Board of Governors. Even during his last illness he shared in the deliberations of his colleagues in many matters pertaining to the welfare of the hospital. He had long looked forward to becoming Senior Physician to the Hospital, and there is much that is tragic in his fatal illness at the time when his ambitions had just been realized.

RICHARD PARAMORE, M.D.,
LONDON.

WE regret to record the sudden death in his sixty-fourth year, in the last week of June, of Dr. Richard Paramore, a general practitioner exceptionally well known among his colleagues in London, and the general public in the Euston district. He was born in Devonport in 1848, and after the completion of his general education was articled to the late Dr. Frederick Row, Surgeon to the Royal Albert Hospital, and Paramore thus gained a useful insight into the conduct of good class general practice, and also laid the foundations of surgical experience. He became a student at Guy's Hospital, and took the diplomas of L.S.A. in 1867, M.R.C.S. in 1872, and M.D.Brussels in 1884. He started practice in Hunter Street—a somewhat bold proceeding, as his age was then only 21—a step which was fully justified by the results. He was exceptionally able in the management of children, and little by little built up an excellent general practice, which he carried on, both at Hunter Street and his residence in Gordon Square, right up to the time of his death. He held several appointments, among them being that of medical officer to the post office, by whose authorities he was greatly esteemed.

Paramore's outlook, both on life and his special occupation, was broad, and he was a member of many professional organizations: The British Medical Association, the Royal Society of Medicine, the Medical Society of London, the Harvcian Society, the West London Medico-Chirurgical Society, and the Society for the Study of Inebriety. He contributed occasionally to our columns, and was the author of books entitled *Hints on Health; Sleep;* and *The Influence of Social Habits on Health and Character.* He was a man of very marked individuality of character, and was an interesting companion, with a capacity for the apt quotation of poetry, and such readiness in expressing his ideas as might have led to his attaining distinction in any walk of life. On this point a correspondent writes:

> He was a fine speaker—in fact, he was an orator; and it was a delight to listen to him, especially when he had a good cause at heart. He was generous to a fault, and the world will be the poorer for his loss. No man was ever more eager to help his professional brethren, and his kindness and generosity to the deserving among his patients was immense.

As a specific instance of Dr. Paramore's readiness to devote his time, powers of persuasion, and his energy to the assistance of his friends, may be mentioned the part he played in raising the fund to reimburse the late Dr. W. T. Law for some part of the expense in which he was involved by an action brought against him. Dr. Paramore married in 1875, and is survived by his wife, four sons, and two daughters.

THE next examination of candidates for the Royal Naval Medical Service will be held in London on September 30th and following days. The number of appointments offered for competition will be fifteen. Forms of entry and other information can be obtained on application to the Medical Director-General, Admiralty, S.W.

Medical News.

THE Continental Anglo-American Medical Society will give a luncheon at the Adelphi Hotel, Liverpool, on Thursday, July 25th, at 1.30 p.m. Members of the society intending to be present are requested to communicate with Dr. Leonard Robinson, 28, Rue de Ponthieu, Paris.

THE Irish Medical Schools' and Graduates' Association will give a luncheon at the Exchange Station Hotel, Liverpool, on Wednesday, July 24th, at 1.30 p.m. The president, Dr. H. Macnaughton Jones, will be in the chair. The honorary provincial secretary, Dr. Shepherd Boyd, 7, Springfield Avenue, Harrogate, asks that members intending to be present should notify him as soon as possible.

THE temperance breakfast usually held during the annual meeting of the British Medical Association will take place this year on Thursday, July 25th, at 8.15 a.m., in the Walker Art Gallery. Mr. Alexander Guthrie, J.P., a vice-president of the National Temperance League, will preside, and Dr. F. W. Mott, F.R.S., will deliver an address dealing with one of the aspects of the present attitude of the profession towards the use of alcohol. The proceedings will conclude in time for members to attend the meetings of the sections.

THE London Dermatological Society held its first annual dinner on July 1st, the guest of the evening being Lord Chesterfield. In replying to a toast to the society, proposed by Mr. McAdam Eccles, Dr. Morgan Dockrell, who was in the chair, said that the society, whose objects were educational, consultative, and social, had already proved of great use to many members of the medical profession, and had, he believed, a great future. It the course of the evening the Chesterfield medal was presented to Dr. Bartholomew.

THE number of the *Arena* for July will maintain the reputation of this new monthly for the excellence of its illustrations. The chief article is on Haileybury, which celebrates its jubilee as a public school this year; it has many pictures, and there is a fine photograph of the chapel on the cover. From an article on schools in Japan we learn that in the eight higher-grade secondary schools open to boys preparing for the universities, all maintained by the State, special facilities have recently been arranged for those intending to become medical students. The periodical, though directly addressed to old public school boys, will appeal also to parents who have boys of public school age.

THE time-table of the Oxford Ophthalmological Congress can now be obtained on application to Mr. Sydney Stephenson, 33, Welbeck Street, London, W. It will begin on Thursday next, July 18th, at 10 a.m.; members of the congress can stay at Keble College, the charge for board and lodging being 7s. 6d. a day, and there will be an unofficial dinner on Wednesday evening in Keble Hall. On the mornings of Thursday and Friday, there will be demonstrations in the department of physiology, where a museum has been formed. On Thursday evening there will be operations and demonstrations of cases at the Eye Hospital, and in the evening the Warden of Keble College will preside over the official dinner of the congress in Keble Hall. On Friday afternoon there will be a discussion on coal miner's nystagmus at the Eye Hospital, and on Saturday the members will make an excursion by river to Reading or Henley.

AT the annual meeting of the Stockport, Macclesfield, and East Cheshire Division of the British Medical Association, held at Macclesfield on June 26th, Dr. Hyde Marriott of Stockport, Chairman of the Division, presented to Dr. John Brierley Hughes, the Secretary of the Division, on behalf of its members, a beautiful silver rose bowl, in recognition of the valuable services he had rendered to the Division as secretary for the past five years, and more particularly as a slight acknowledgement of his devotion to and successful discharge of the onerous duties devolving upon him during the past year, especially in connexion with the Insurance Bill. Dr. Hyde Marriott spoke of the hearty response to the appeal by members of the Division and their willingness to show in a marked degree their high appreciation of Dr. Hughes and the able manner in which he had carried out the duties of secretary. Dr. Hughes, in thanking the members of the Division, said that he deeply appreciated all the kind things said of him, and although the work had at times been severe, he felt he had been amply repaid in the unanimity of the members of the Division, by their strong support to the principle of a "united policy" in regard to the Insurance Act.

Letters, Notes, and Answers.

ORIGINAL ARTICLES and LETTERS *forwarded for publication are understood to be offered to the* BRITISH MEDICAL JOURNAL *alone unless the contrary be stated.*

COMMUNICATIONS respecting Editorial matters should be addressed to the Editor, 429, Strand, London, W.C.; those concerning business matters, advertisements, non-delivery of the JOURNAL, etc., should be addressed to the Office, 429, Strand, London, W.C.

MANUSCRIPTS FORWARDED TO THE OFFICE OF THIS JOURNAL CANNOT UNDER ANY CIRCUMSTANCES BE RETURNED.

AUTHORS desiring reprints of their articles published in the BRITISH MEDICAL JOURNAL are requested to communicate with the Office, 429, Strand, W.C., on receipt of proof.

CORRESPONDENTS who wish notice to be taken of their communications should authenticate them with their names—of course not necessarily for publication.

CORRESPONDENTS not answered are requested to look at the Notices to Correspondents of the following week.

TELEGRAPHIC ADDRESS.—The telegraphic address of the EDITOR of the BRITISH MEDICAL JOURNAL is *Aitiology, London.* The telegraphic address of the BRITISH MEDICAL JOURNAL is *Articulate, London.*

TELEPHONE (National):—
2631, Gerrard, EDITOR, BRITISH MEDICAL JOURNAL.
2630, Gerrard, BRITISH MEDICAL ASSOCIATION.
2634, Gerrard, MEDICAL SECRETARY.

☞ *Queries, answers, and communications relating to subjects to which special departments of the* BRITISH MEDICAL JOURNAL *are devoted will be found under their respective headings.*

QUERIES.

DOUBTFUL asks for information or references as to the known or suggested influences of dry rot in a house on the health of the inmates.

H. L. asks as to the use of spermin in epilepsy (adult female), the best method of administration, and the usual dose to begin with.

WHAT IS "NURSERY MILK"?

DR. BRANSBY YULE (London) writes: I shall be glad if you or your readers will tell me what is generally understood by "nursery milk." Up to the present I have been fondly imagining that the term implied that it was milk obtained from one or more special cows. Now, however, I am informed by an official of one of the large milk companies that the term (as used by them) denotes absolutely pure milk, as distinguished from milk to which colouring matter has been added. For my further information he explained that the greater part of all the milk supplied retail in London at the present time contains added colouring matter, a fact of which I was not aware.

MYOTATIC IRRITABILITY.

DR. S. V. SOMEREN BOYD (Fenton, Staffs) writes: In the course of the examination of patients and a large number of new proposals for insurance, I have been in the habit of examining for myotatic irritability as a sign of recent wasting. I very soon found, however, that almost without exception those whose work is muscularly arduous show the sign even where no sign or symptom of disease is present. Colliers especially show very marked muscular irritability, with increased tendon reflexes. Dr. Milne, R.M.O. of the North Staffs Infirmary, tells me that he has observed the sign in almost every patient, ill from any cause, and not especially and only in the diseases we designate as "wasting diseases." I should be glad of information as to the reliability or the reverse of this sign as a test of wasting, as I cannot from my own experience escape the conviction that it is of much less value than our textbooks would lead us to suppose.

ANSWERS.

DR. GIBSON PARKER.—There are two institutions in the West of England which might be suitable for the imbecile boy as to whom inquiry is made: (1) The Western Counties Asylum, Starcross, Devon (registered under the Idiots Act); Secretary and Superintendent, Mr. E. W. Locke; patients received at 10s. 6d. per week. (2) Stoke Park, near Bristol (for feeble-minded); information can be obtained from the Secretary, National Institutions for Persons requiring Care and Control, 14, Howick Place, Westminster, S.W.; about 12s. weekly.

DR. JOHNSTON-LAVIS (Vittel, Vosges) writes, in reply to "Midlothian" (BRITISH MEDICAL JOURNAL, June 29th, 1912): At Vittel a large number of cases of glycosuria are treated. In the last fortnight four English patients of mine have left with the following results: Dr. T., 2.314 grams of glucose in twenty-four hours' urine fell to *nil* in three weeks' cure; Mr. P., 5.719 grams on arrival, *nil* on departure; Mr. B., 3.671 grams on arrival, after eight days of cure *nil*; Mr. M., 184.5 grams (6 oz.) in twenty-four hours fell to 4.32 grams (66 grains) in twenty-four hours at end of three weeks. Besides this, their physiological equilibrium was restored; as shown by the analyses made before and after the cure in my own laboratory. Their general state was markedly improved. These are the usual results we get by treatment at Vittel.

LETTERS, NOTES, ETC.

BRUSSELS MEDICAL GRADUATES' ASSOCIATION.

IT has already been announced in the JOURNAL that the annual meeting and launch party of the Brussels Medical Graduates' Association will take place on Saturday, July 13th. The launch will start from Maidenhead at 12.30 p.m., returning about 8 p.m. The nearest station to Maidenhead Bridge is Taplow, which can be reached by a train leaving Paddington at 11.15 a.m. The launch party will be photographed at Boulter's Lock. Railway fares at reduced rates can be obtained from the Honorary Secretary, Dr. Arthur Haydon, 23, Henrietta Street, Cavendish Square, W.

PLUMBISM.

COMMENTING on the statement by Dr. Arbour Stephens (report of South Wales and Monmouthshire Branch, JOURNAL, June 22nd, p. 1425), Dr. John W. Duncan (Hockley, Birmingham) writes that in all cases of plumbism he has seen the colour of the line was in his judgement best described as purple. In his opinion, white, yellow, and green all come into the colours of the gums, as well as red and blue to produce purple.

LOCAL APPLICATIONS OF TARAXACUM JUICE.

A. D. writes: In 1874 *(Pharm. Journal)* I was struck with the extreme bitterness of one of the common ligulate yellow composites. I have an idea it was once given as a variety of the dandelion *(minus?)*. It is known as *Apargia autumnalis*, and may be easily identified from near allies by the bladdery condition of the stalk just under the receptacle. I made a juice according to the official formula; the yield was much less than that of dandelion, but the bitterness was far more intense; whether the juice was as highly charged with mannite I do not know. The season is just coming on when the plant will flower and can be identified. I know Dr. Herbert J. Robson will be seeking to know what particular principle in the dandelion promises to be effective, and it may be that *Apargia autumnalis* contains a larger supply. However, I send this communication to the JOURNAL, rather than to Dr. Robson, on account of the general interest.

MISS EVIE EVANS, M.B. (Cardiff), writes: In reference to a memorandum by Dr. Herbert Robson in your issue of May 25th on the benefit of taraxacum in "cancer," dandelion juice is reputed a "cure" for "warts." I once applied this remedy to a wart on the hand which projected, as nearly as I can remember, a full quarter of an inch. I rubbed in the juice of every flowering dandelion I saw for many weeks. I noticed no improvement; certainly the wart grew no smaller; finally, however, as I was in the act of applying the juice, the wart suddenly dropped out, leaving a smooth socket. The "root" of the wart was about one-third of its total length. I have never since then seen a wart disappear in this way, nor have I met any one who has seen it. The dandelion may have some action on epithelial tissue over and above the obvious blackening of the epidermis which occurs; its action could be studied more easily on "warts" than on internal "cancers," and a knowledge of its action on an innocent growth might prove to have some bearing on the problem of its action on malignant growths.

A WARNING JUSTIFIED.

A WARNING was published in the BRITISH MEDICAL JOURNAL of June 22nd regarding an individual who in several instances had called upon a medical man stating that he had been appointed president of a local branch of the Boy Scouts' Ambulance Brigade, and had then solicited a subscription. It is of interest to record that at the Surrey Quarter Sessions on July 2nd, William Stanley Reeves, aged 20, described as a painter, pleaded guilty to having obtained by false pretences the sum of 10s. 6d. from Dr. Colby, and 5s. from Mr. Herbert Snell, dentist, both of Woking. From the evidence of the prosecution, it appeared that the prisoner pretended to be a captain of the Woking Boys' Ambulance Brigade, and asked for subscriptions to buy stretchers, as the brigade was going to give a demonstration before the King at Windsor. When arrested the prisoner had a fully loaded six-chamber revolver in his possession. Evidence of three previous convictions against the prisoner was given, and he was sentenced to six months' hard labour.

CORRECTIONS.

IN a note entitled "Midwifery Forceps of Early Eighteenth Century Pattern," by Dr. A. Cordes of Geneva, which appeared in the JOURNAL of June 1st, p. 1276, "Levet" should be "Levret," "Malder" should be "Mülder," and "vecticum" should be "vectium."

SCALE OF CHARGES FOR ADVERTISEMENTS IN THE BRITISH MEDICAL JOURNAL.

	£	s.	d.
Eight lines and under	0	4	0
Each additional line	0	0	6
A whole column	2	13	4
A page	8	0	0

An average line contains six words.

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NOTE.—It is against the rules of the Post Office to receive *postes restante* letters addressed either in initials or numbers.